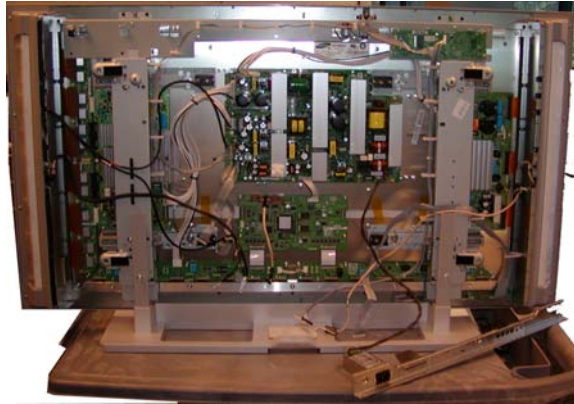
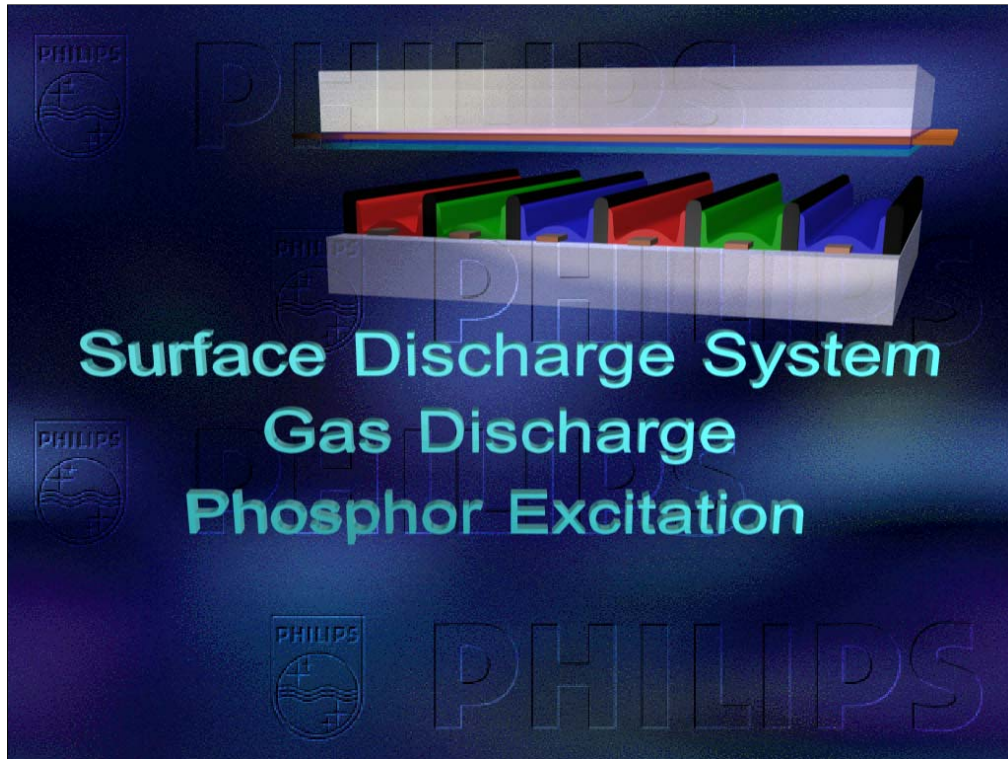


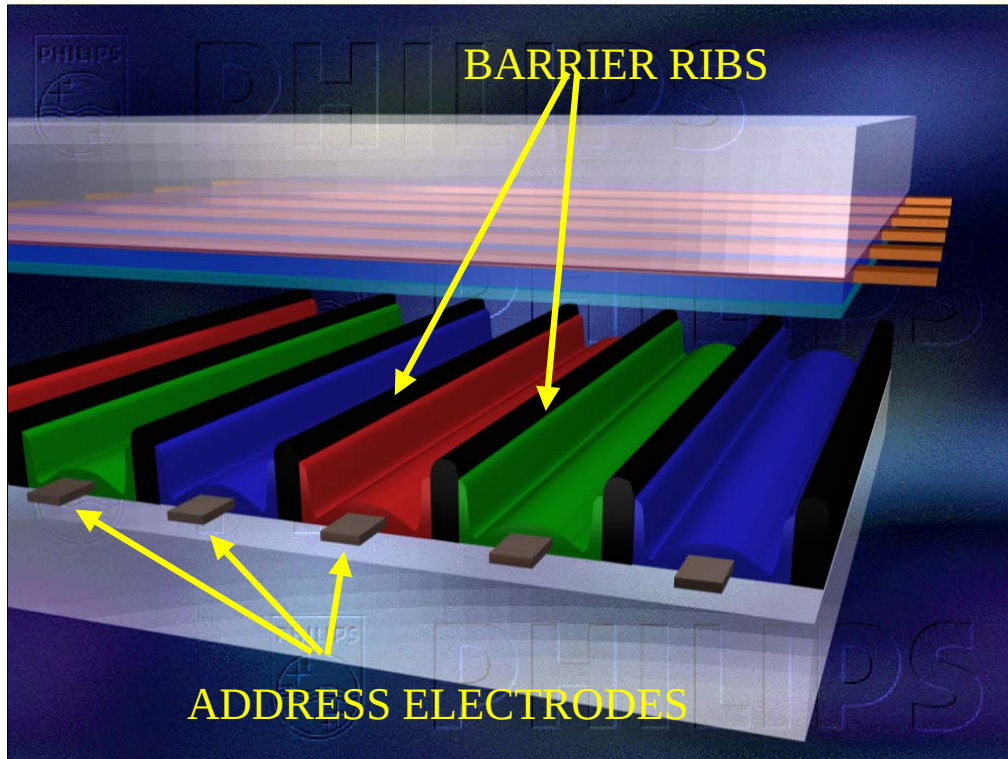


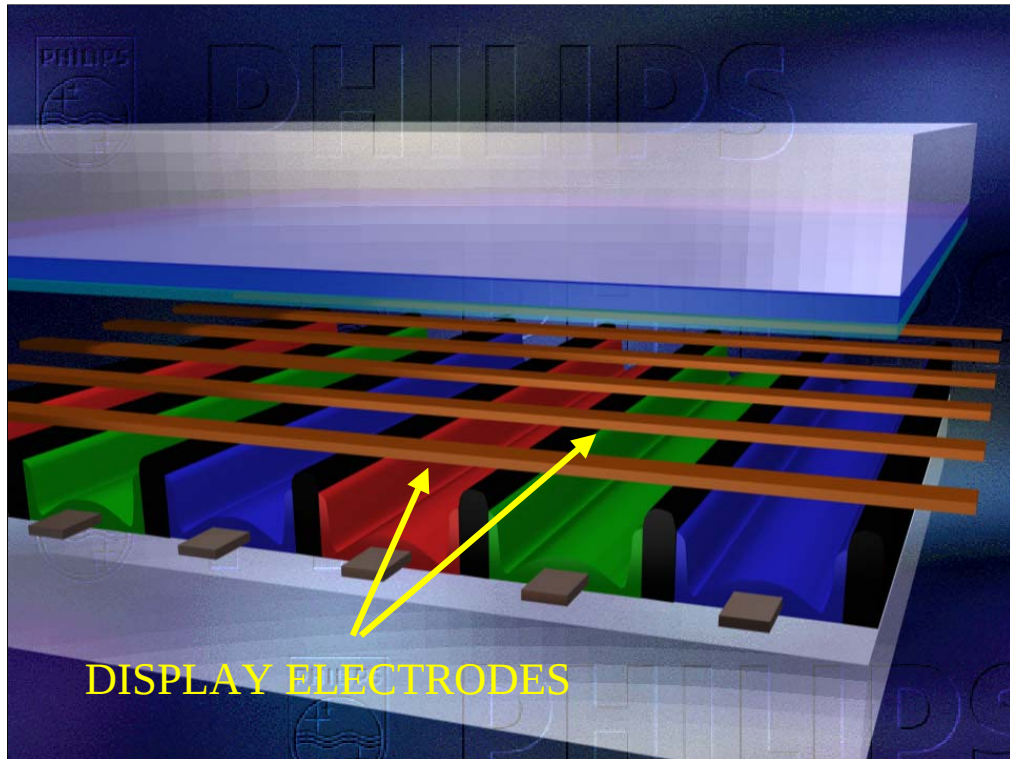
PHILIPS TECHNICAL TRAINING

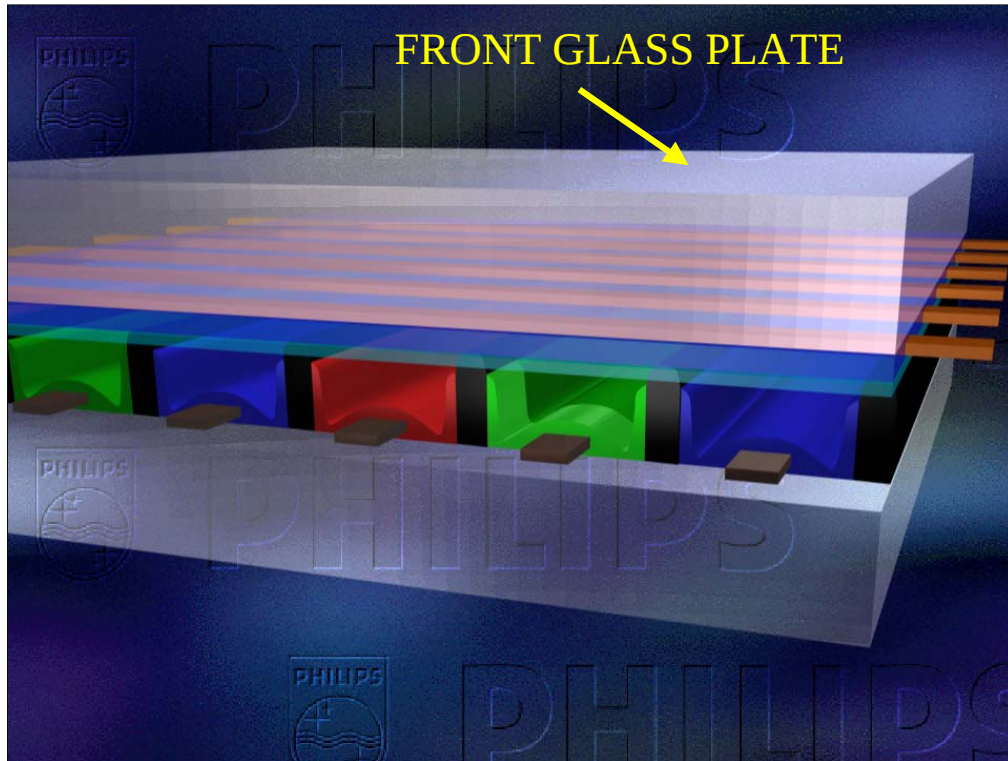


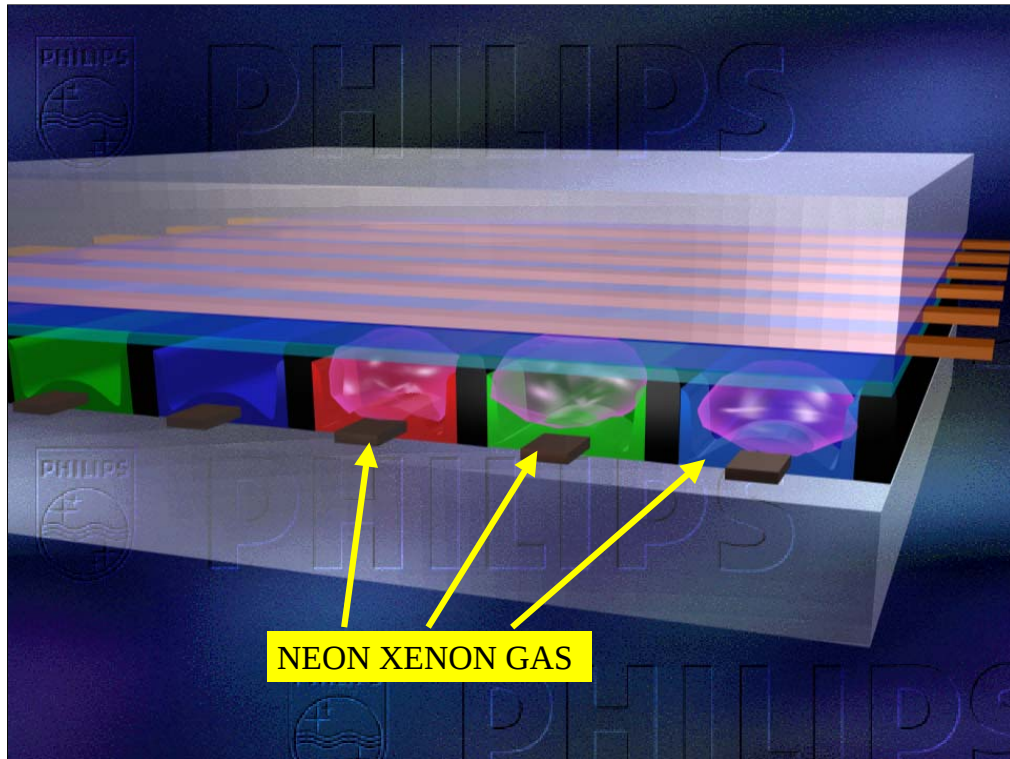
PLASMA PANEL REPAIR







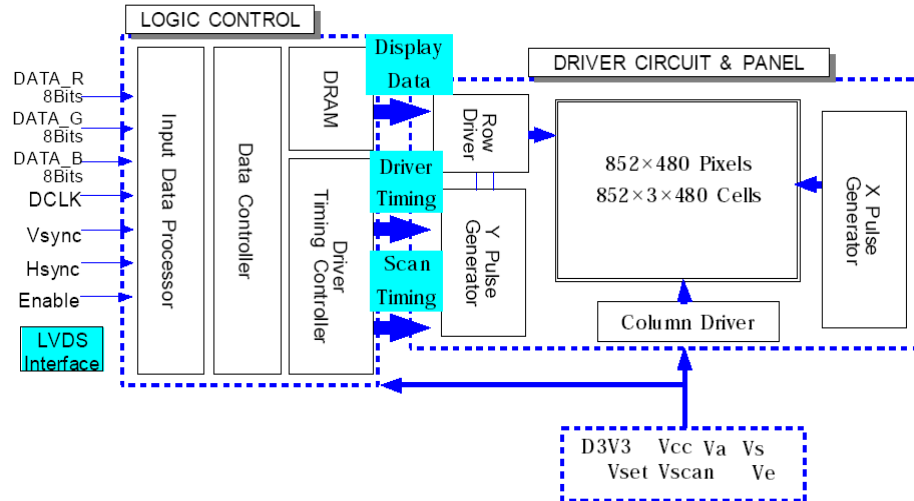


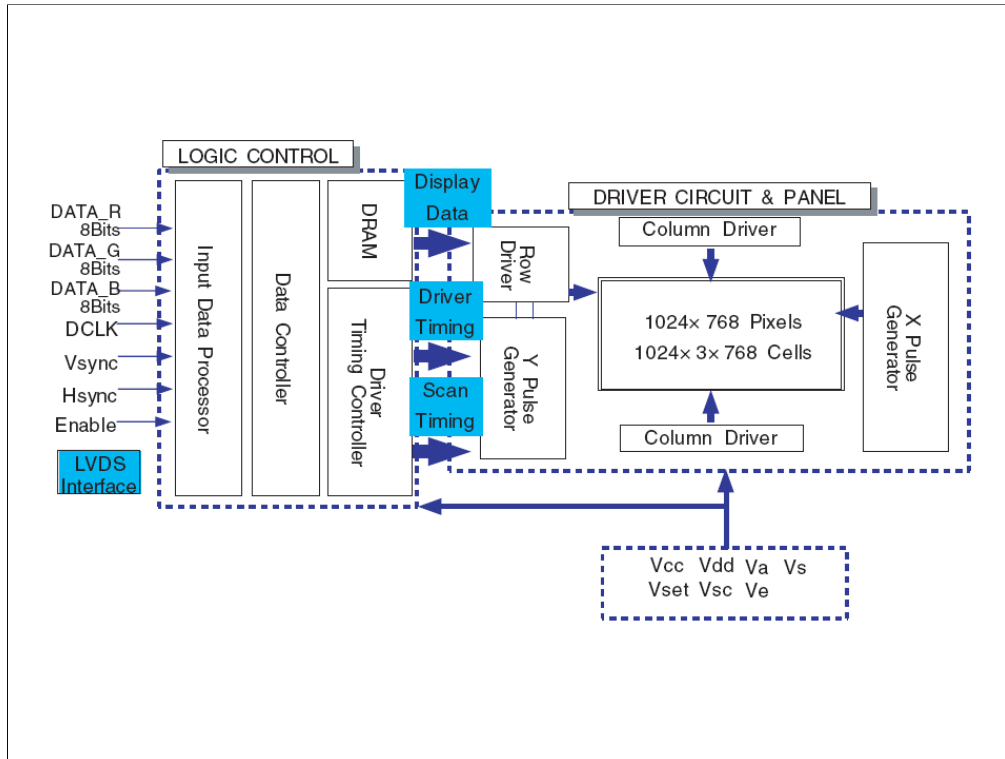


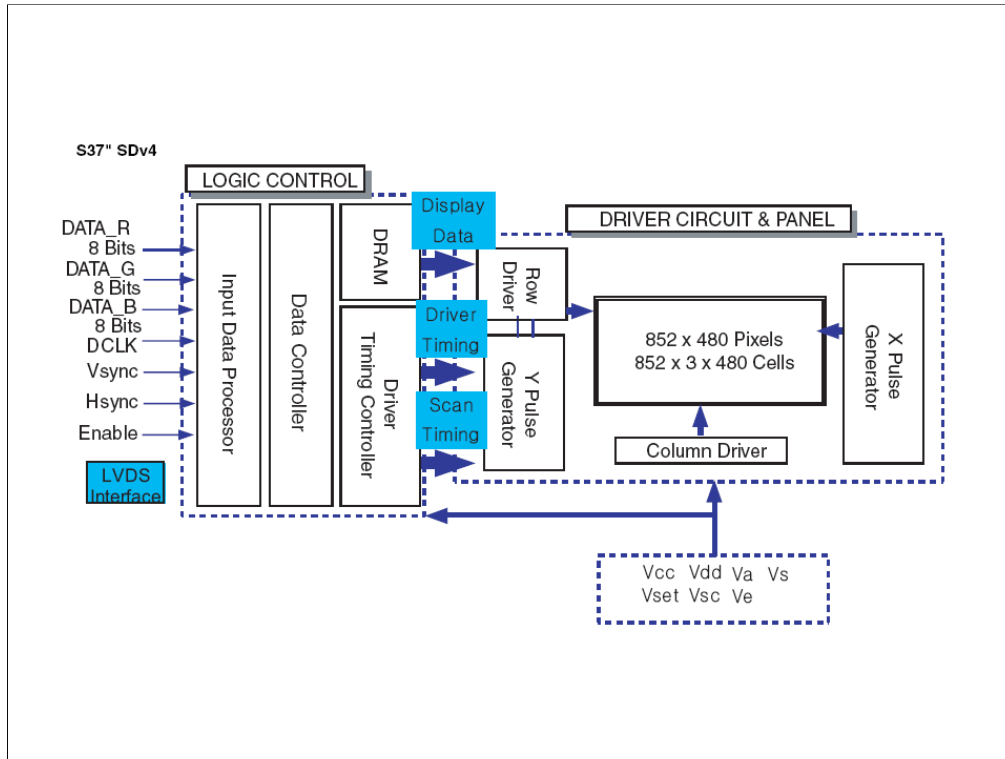
- CHARGE / DISCHARGE CYCLE
 - Uses Neon Xenon gases
 - A voltage is applied between the Address Electrodes and display electrodes to stimulate ultraviolet radiation UV
 - UV stimulation causes color phosphors to glow
 - These form picture elements

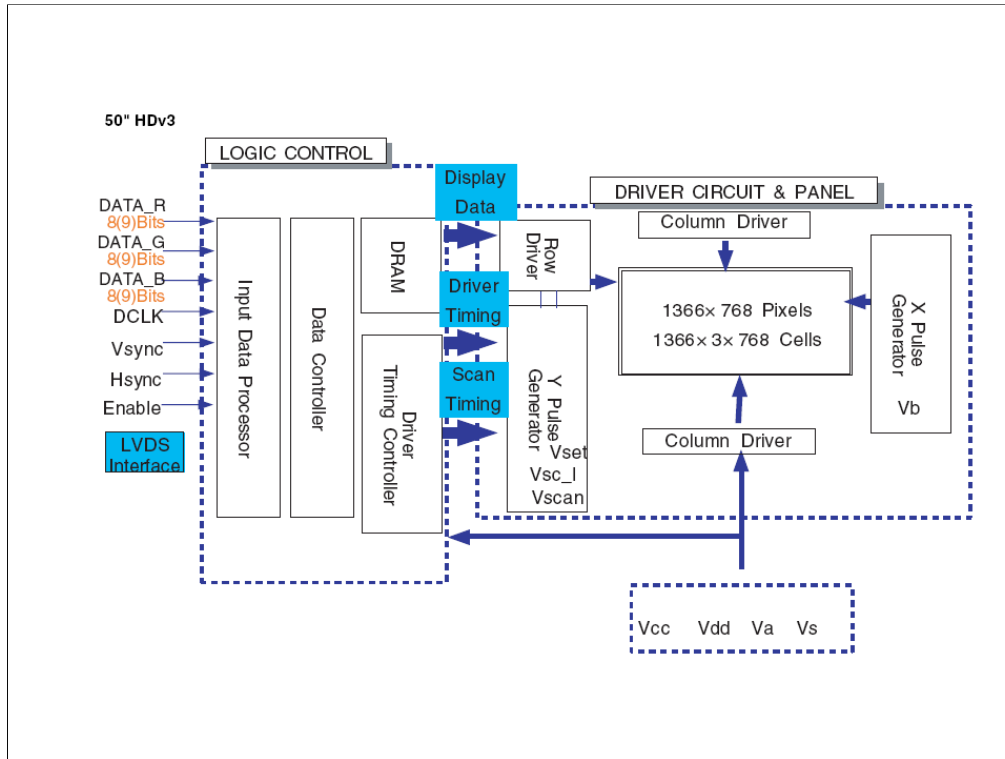
PANEL Module Introduction

4. BLOCK DIAGRAM









SDI BUILT PANELS IN PHILIPS SETS ARE THE
ONLY PANELS FEATURED IN THIS TRAINING

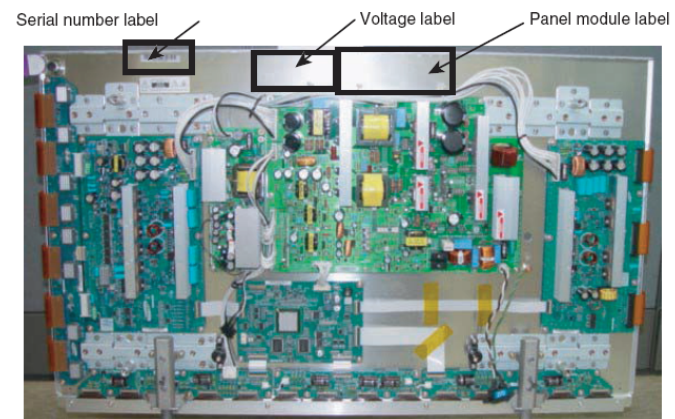
	PDP Type/Version	Model Name	H x V Pixel
1	37" SD v4	S37SD-YD02	852 x 480
2	42" SD v2	S42SD-YD06	852 x 480
3	42" SD v3	S42SD-YD05	852 x 480
4	42" SD v4	S42SD-YD07	852 x 480
5	42" HD v3	S42AX-XD02	1024 x 768
6	42" HD v4	S42AX-YD01	1024 x 768
7	50" HD v3	S50HW-XD03	1366 x 768
8	50" HD v4	S50HW-XD04	1366 x 768

Display type	Model #	Chassis	Chassis Manual #
37" SD v4	37PF9936/37	LC4.7U	3122 785 14742
37" SD v4	37PF9946/12	LC4.7E	3122 785 14722
37" SD v4	37PF9946/69	LC4.7A	3122 785 14761
42" SD v2	420P20/00	FM242	3122 785 14130
42" SD v2	42FD9925/01	FM242	3122 785 14130
42" SD v2	42FD9935/17	FM242	3122 785 14130
42" SD v2	42FD9935/93S	FM242	3122 785 14130
42" SD v2	42FD9945/01	FM242	3122 785 14130
42" SD v2	42FD9953/17, /69, /93	FM242	3122 785 14130
42" SD v2	42HF9953/12Z	FM24_AB	3122 785 13890
42" SD v2	42PF9936/37	FTP1.1U	3122 785 14381
42" SD v2	42PF9945/12	FTP1.1E	3122 785 14370
42" SD v2	42PF9945/69, /79, /98	FTP1.1U	3122 785 14381
42" SD v2	42PF9955/12	F21RE	3122 785 13890

42" SD v3	42PF9936D/37	LC4.7U	3122 785 14742
42" SD v3	42PF9946/12	LC4.7E	3122 785 14722
42" SD v3	42PF9946/79, /93, /98	LC4.7A	3122 785 14761
42" SD v3	42PF9956/12	FTP2.2E	3122 785 14651
42" SD v3	42PF9956/93	FTP2.2A	3122 785 14680
42" SD v4	42PF7320/10	LC4.9E	3122 785 15431
42" SD v4	42PF7320/79, /98	LC4.9A	3122 785 15450
42" HD v3	42PF9966/37	FTP2.2U	3122 785 14662
42" HD v3	42PF9966/79, /93, /98	FTP2.2A	3122 785 14680
42" HD v3	42PF9976/37	FTP2.2U	3122 785 14662
42" HD v4	42HF7543/37	BP2.3HU	3122 785 15900
42" HD v4	42PF7320A/37	BP2.3U	3122 785 15541
42" HD v4	42PF7520D/10	LC4.9E_AB	3122 785 15670
42" HD v4	42PF9630/78	FTP2.4L	3122 785 15470
42" HD v4	42PF9630A/37	BP2.2U	3122 785 15541
42" HD v4	42PF9630A/96	BP2.2U	3122 785 15541

42" HD v4	42PF9966/79, /98	FTP2.4A	3122 785 15470
50" HD v3	50PF9956/37	FTP2.2U	3122 785 14662
50" HD v3	50PF9966/12	FTP2.2E	3122 785 14651
50" HD v3	50PF9966/37	FTP2.2U	3122 785 14662
50" HD v3	50PF9966/69, /93	FTP2.2A	3122 785 14680
50" HD v4	50HF7543/37	BP2.3HU	3122 785 15900
50" HD v4	50PF7320/10	LC4.9E	3122 785 15431
50" HD v4	50PF7320/79, /93, /98	LC4.9A	3122 785 15450
50" HD v4	50PF9630/78	LC4.9L	3122 785 15450
50" HD v4	50PF9630A/96	BP2.2U	3122 785 15541
50" HD v4	50PF9830A/37	BP2.1U	3122 785 15541
50" HD v4	50PF9966/79	FTP2.4A	3122 785 15470
50" HD v4	50PF9967D/10	FTP2.4E_AB	3122 785 15740

1.1.1 37" SD v4



PDP LABEL

The diagram shows a Samsung PDP Module label with the following information:

Power supply settings (NTSC/PAL):

Va	Vsc	Vs	Ve	Vset	
79	78	87	107	93	
VSB	3.3SBSW	Vcc	D5V	8V6	VFAN
5.2V	3.3V	3.3V	5.2V	8.6V	9.5V

Model Name: S42SD-YD06

Serial No: 101303260577

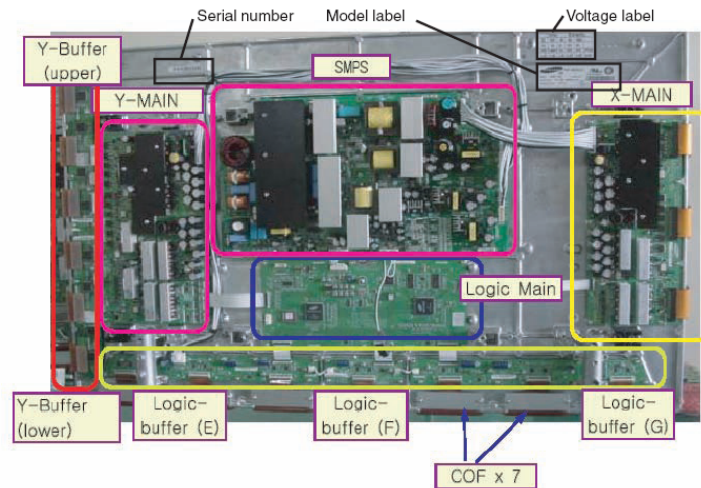
Serial No Breakdown:

- 10: Line No: 1 - 9
- 1: Type: 02 - 48
- 3: Date: 01 - 31
- 03: Month: 01 - 12
- 26: Year
- 0577: Serial No: 0001 - 9999

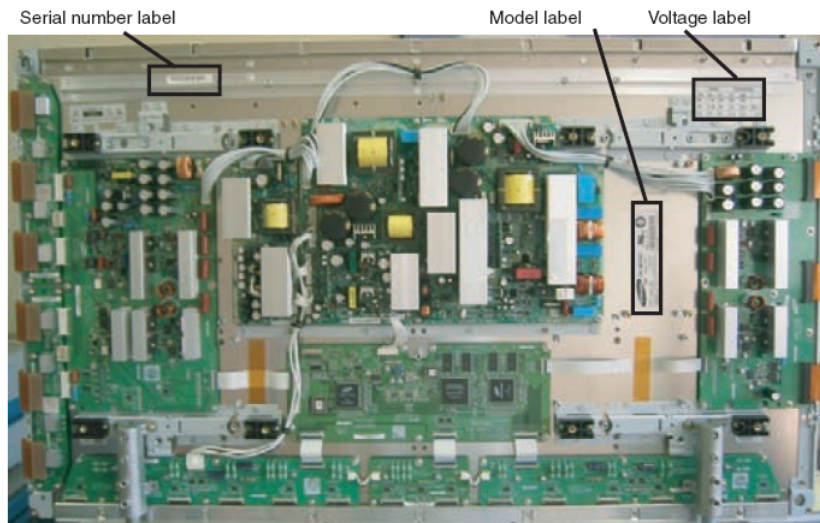
Other Label Information:

- SAMSUNG SDI PDP MODULE
- MODEL: S42SD-YD06
- SERIAL NO. E211281 E233314
- MADE IN KOREA
- MANUFACTURED: 2003 03 31
- 100-240V~50/60Hz 4-2A

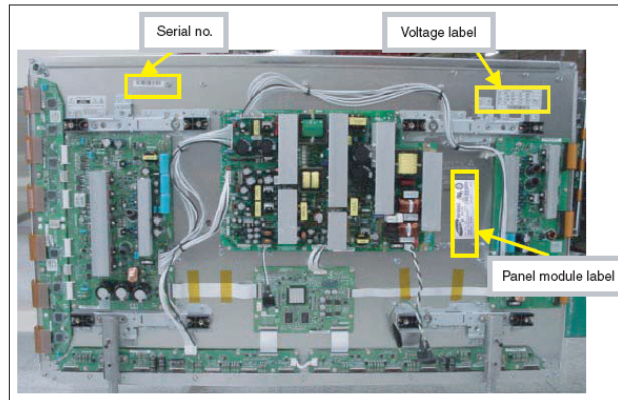
1.1.2 42" SD v2



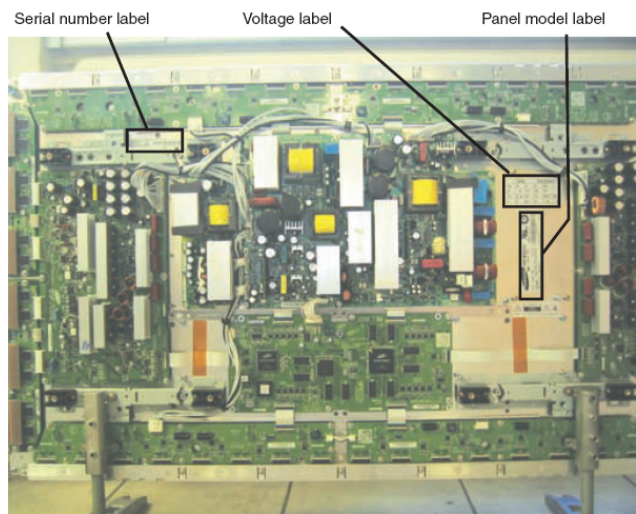
1.1.3 42" SD v3

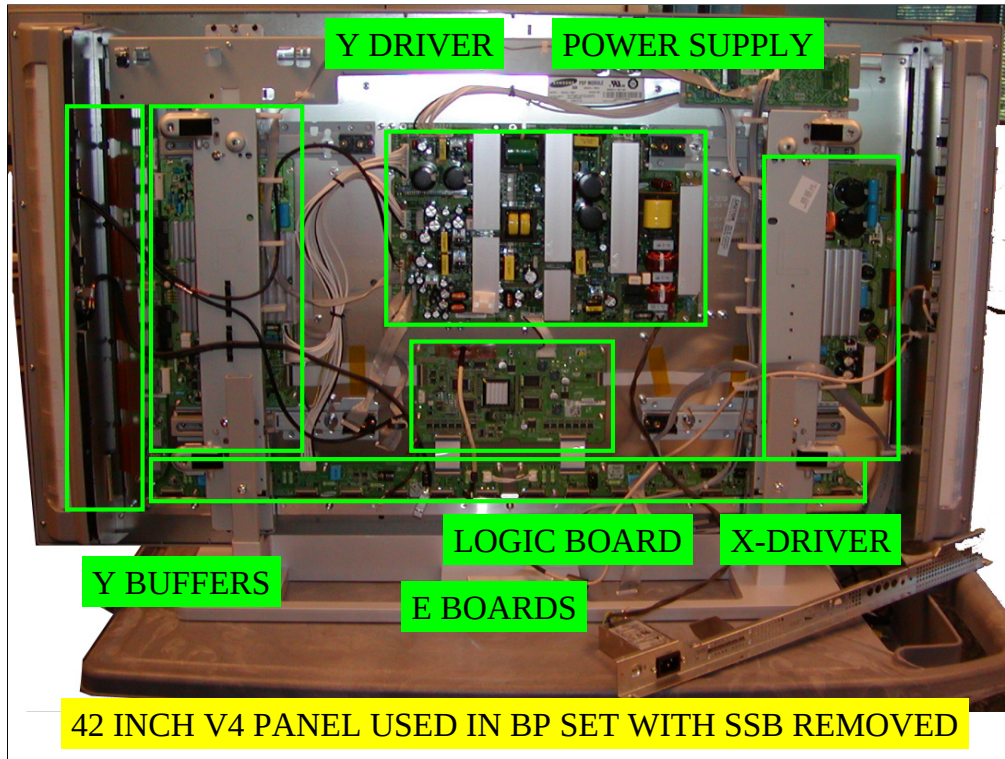


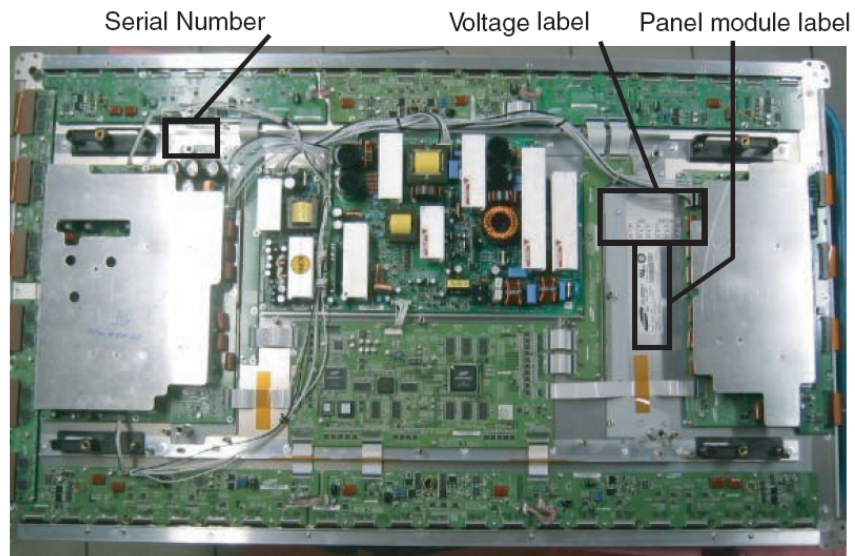
1.1.4 42" SD v4



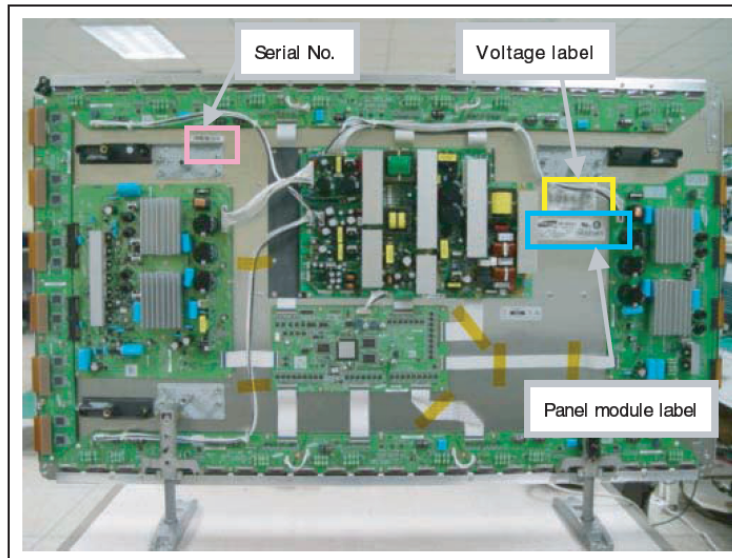
1.1.5 42" HD v3







50HDV3

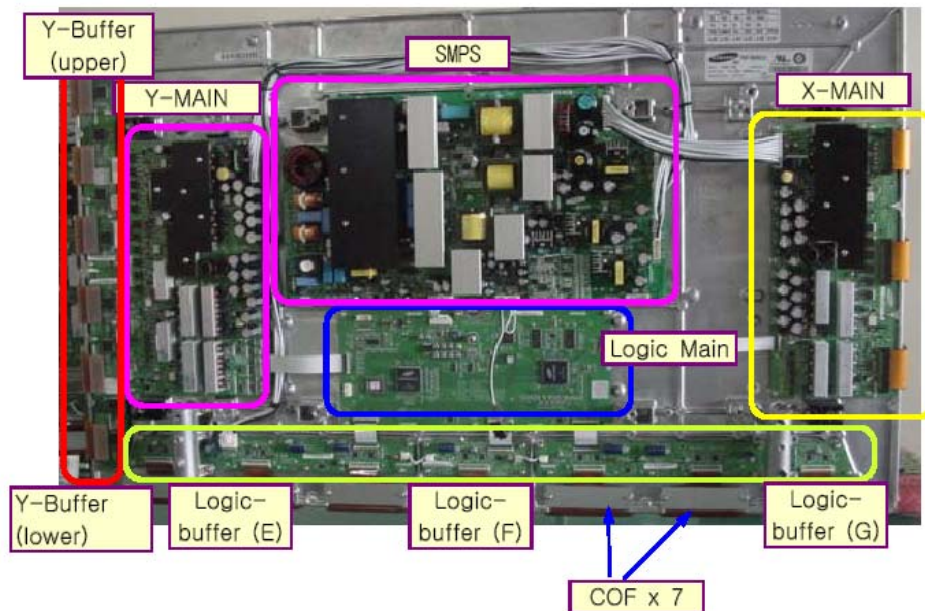


50HDV4

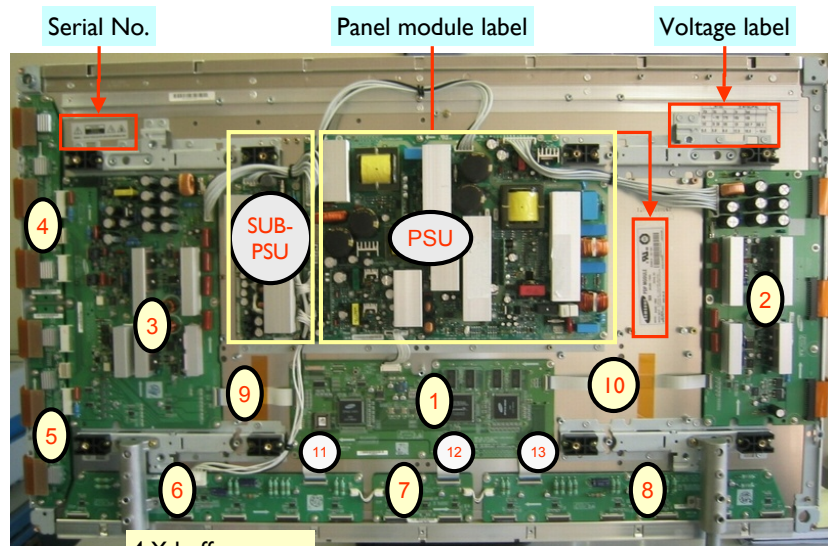
42 INCH SDV2 MODULE LAYOUT

Panel Location FM242 / FTP1.I

YD06 / YB04 Panels



42 INCH SDV3 MODULE LAYOUT



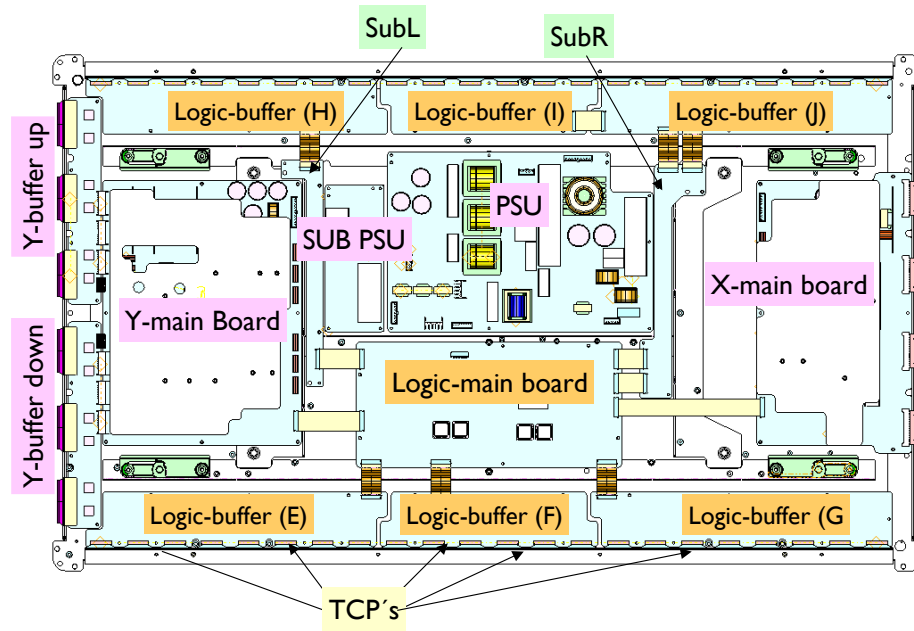
1 Logic Main
2 X-main
3 Y-main

4 Y-buffer upper
5 Y-buffer low
6 Logic-buffer E
7 Logic-buffer F

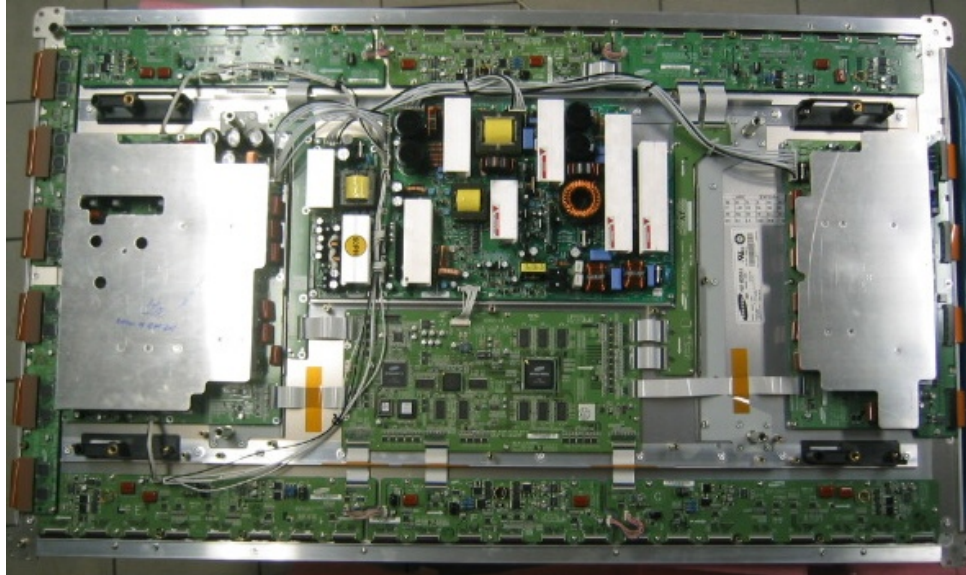
8 Logic-buffer G
9 FFC Logic + Y-main
10 FFC Logic + X-main

11 Logic + Logic buffer
12 Logic + Logic buffer
13 Logic + Logic buffer

50 INCH HD V3 MODULE LAYOUT



PICTURE OF 50 HD V3



■ **SMPS(Switching Mode Power Supply)** : Supplies voltage and current to operate assemblies mounted to each board and Panel.

■ **X Main Board** : According to the timing provided from Logic board, switches FETs and generates driving waveform which is provided to X electrode of Panel through Connector.

■ **Y Main Board** :

According to the timing provided from Logic board, switches FETs and generate driving waveform which is provided to Y electrode of Panel sequentially through Scan Driver IC of Scan Buffer.

■ **Logic Main Board** : Processes image signal and generates Address driving output signal & XY driving signal

■ **Logic Buffer Board(E,F,G)** (+ Logic Buffer H, I, J if HD Display)

Transfers data signal and control signal to COF.

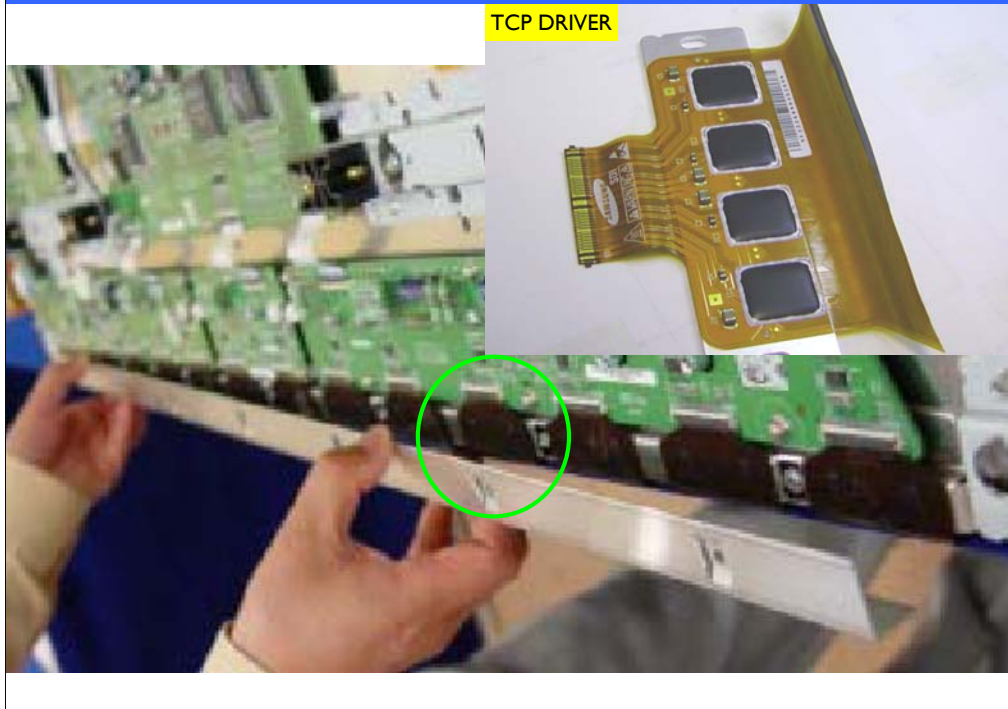
■ **Scan Buffer(Upper,Lower)** : A board allows scan waveform to Y terminal, which is consisted of Upper Board and Lower Board.

(Y-Buffer(Upper,Lower))

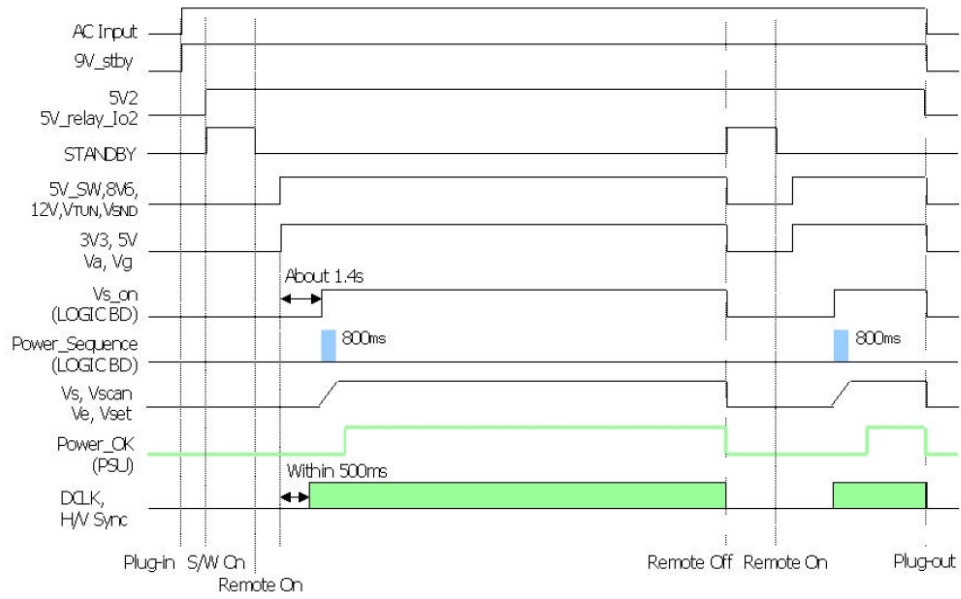
■ **AC Noise Filter** : Blocks noise and spikes and noise on the AC line.

■ **COF(Chip on Flexible) or (TCP Tape Carrier Package)** : It allows Va pulse to address electrode within address period and forms address discharge according to the electric potential difference between Va pulse and the Scan pulse allowed to Y electrode. It is manufactured in COF form and one COF is consisted of four DATA Drive IC .

TCP DRIVER



V2



PANEL DEFECTS

Defect : panel damage

■ Symptom : Panel crack or break. No image appears in some cause depending on the damaged parts and damage level.



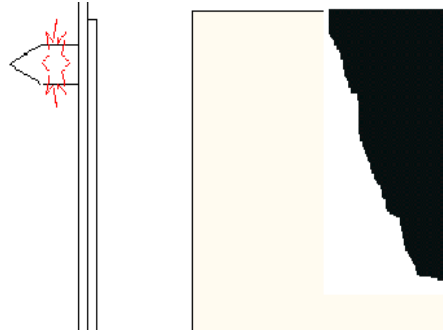
■ Cause

- ① Manufacturing : Flatness/palette pin interruption
- ② Operation : overload of panel corner / careless handling
- ③ Panel : Flatness / assembly error

Defect: Exhaust pipe damage

■ Symptom. : Crack in break if exhaust pipe an image is partially lacking or the panel noise occurs depending on the damaged parts and after a certain time.

Or very loud noise from the panel.



■ Cause : Carelessly panel handling

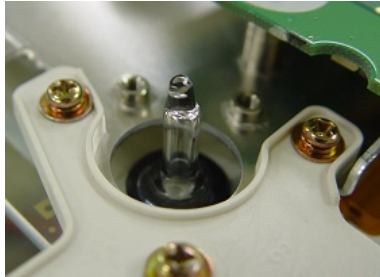
1.2 Exhaust tip Crack

Check exhaust Tip for Cracks with naked eyes to check vacuum state.

If there is problem then replace the module by new one .

⇒ In case of vacuum breakdown, module makes a shaking noise because of inside gas ventilation.

(there may be a small crack which could not see with naked eyes. And this noise is different from Capacitor noise.)



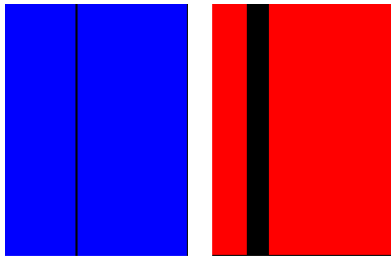
NORMAL



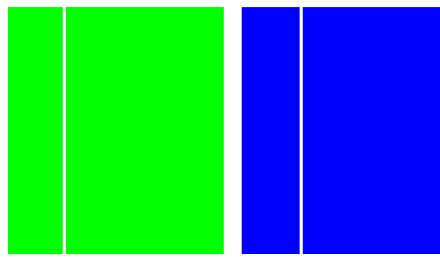
CRACKED

Symptom	Description	Related Board
No voltage output	Operating Voltages don't exist	PSU
No Display	Operating voltages exist, but no Display	Y-Main, X-Main, Logic Main, connections
Abnormal Display	Abnormal Image (not open or short) is on Display	Y-Main, X-Main, Logic Main
Sustain open	Some horizontal lines don't exist on the Display	Scan Buffer, FPC of X / Y
Sustain Short	Some horizontal lines appear to be linked on Display.	Scan Buffer, FPC of X / Y
Address Open	Some vertical lines don't exist on the Display.	Logic Main. Logic Buffer, FFC, TCP
Address Short	Some vertical lines appear to be linked on Display	Logic Main, Logic Buffer, FFC, TCP

Vertical stripe = Address open



Vertical stripe = Address Short

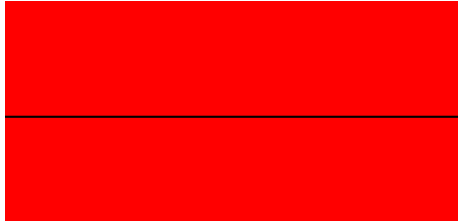


Defect: Address output error



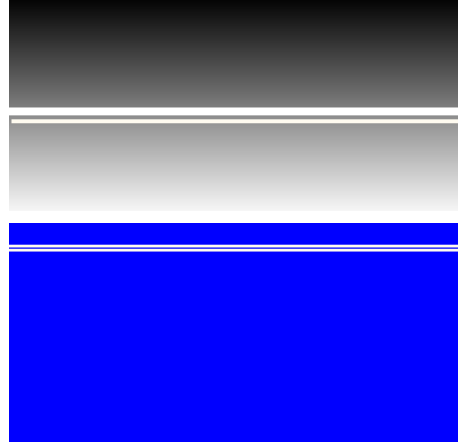
Defect horizontal stripe: Sustain Open

Symptom : One or more line do not light up in Sustain direction



Defect horizontal stripe: Sustain Short

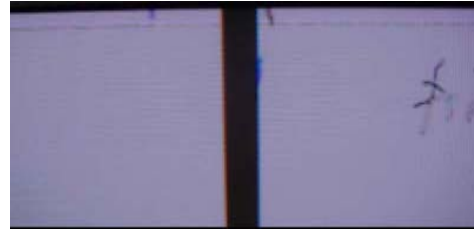
Symptom : Combined or adjacent lines are short in sustain direction. The line appear brighter than other at Ramp gradation pattern or low gradation pattern



Address Block and Line Open



Address and Sustain Open



Defect: Dielectric material layer damage

■ Symptom:

Phosphor damage caused by the damage of address bus dielectric layer appears in the panel discharge/non discharge area. sustain also open/short occurs by the damage of address sustain printout

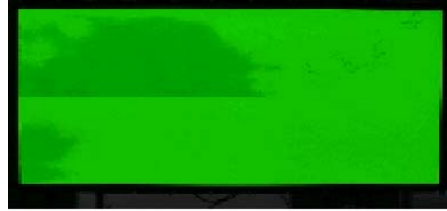
Cause : layer uneven / **abnormal voltage** / foreign material repair failed.

Defect: Full White low discharge .

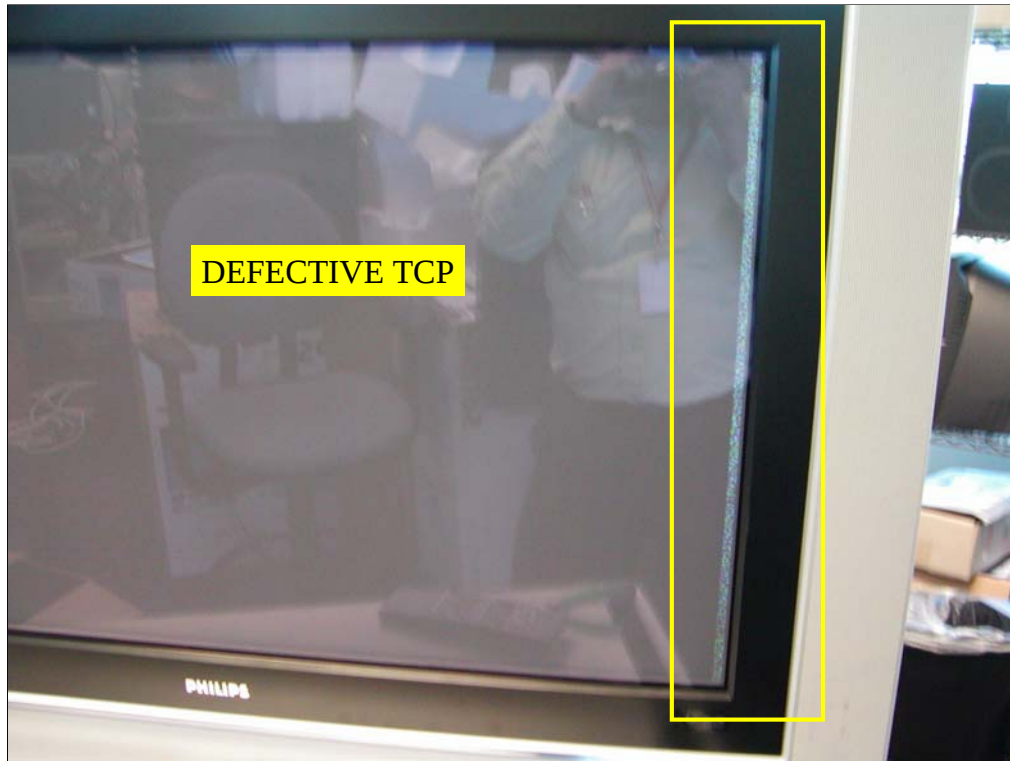


Symptom : Low discharge caused by unstable cells occurring at full white pattern if high (60 degree) or normal temperature.

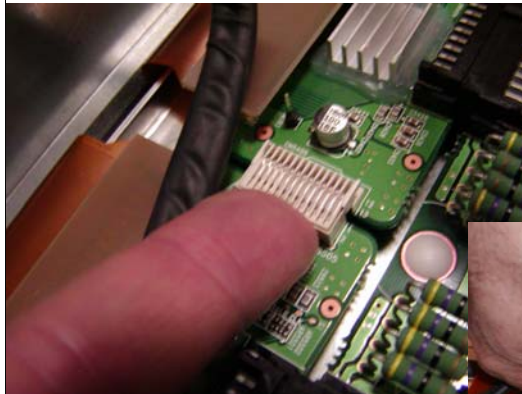
Defect: Weak discharge



Symptom : Normal discharge but cells appear darker due to weak light emission occurring mainly at low (5 degree) Full White/ Red/ Green/ Blue pattern or gradation pattern

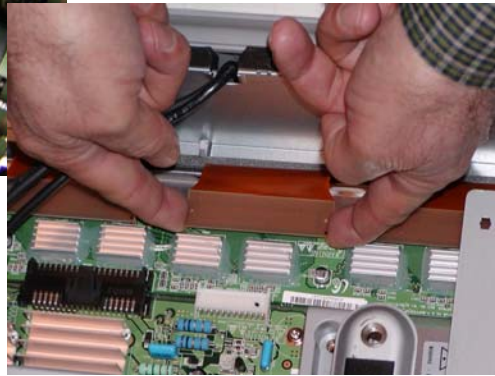


DISASSEMBLY TIPS



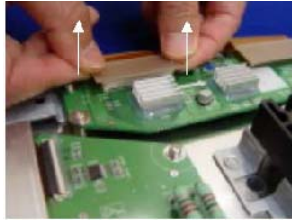
CONNECTOR BETWEEN Y
UPPER AND LOWER ON
42HDV4 PANEL

42HDV4 PANEL

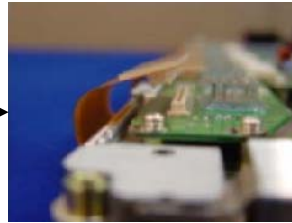


DISASSEMBLY OF THE Y BUFFER

Removal



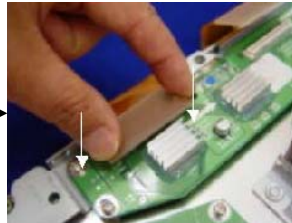
Pull out the FPC from connector by holding the lead of the FPC with hands



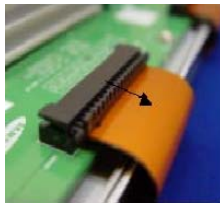
Assembling



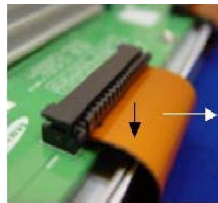
Push the lead of FPC with same strength until to be connected completely.
Be careful do not damage the connector pin during connecting



Disassembling



Pull out the connector clamp

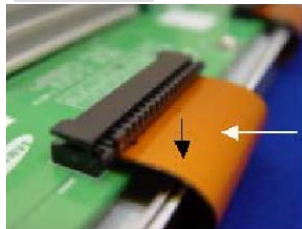


Pull Flat cable out press down lightly

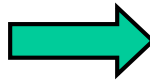


Move away from connector

Assembling

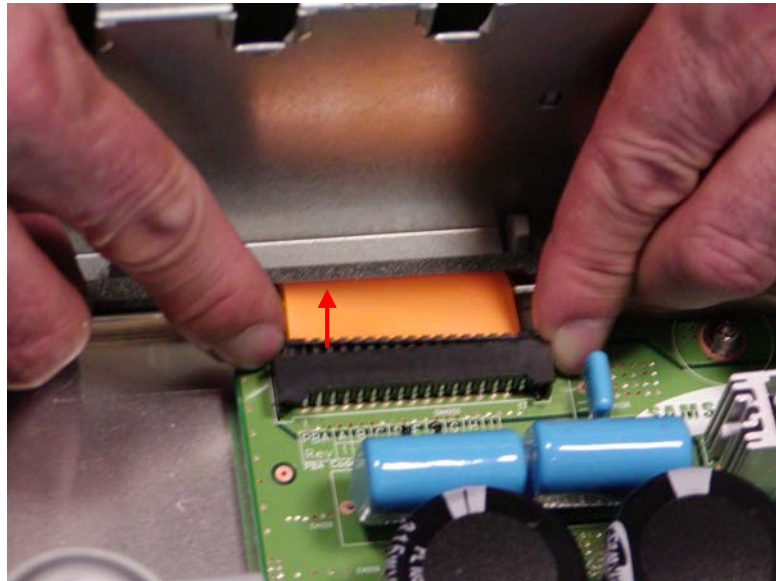


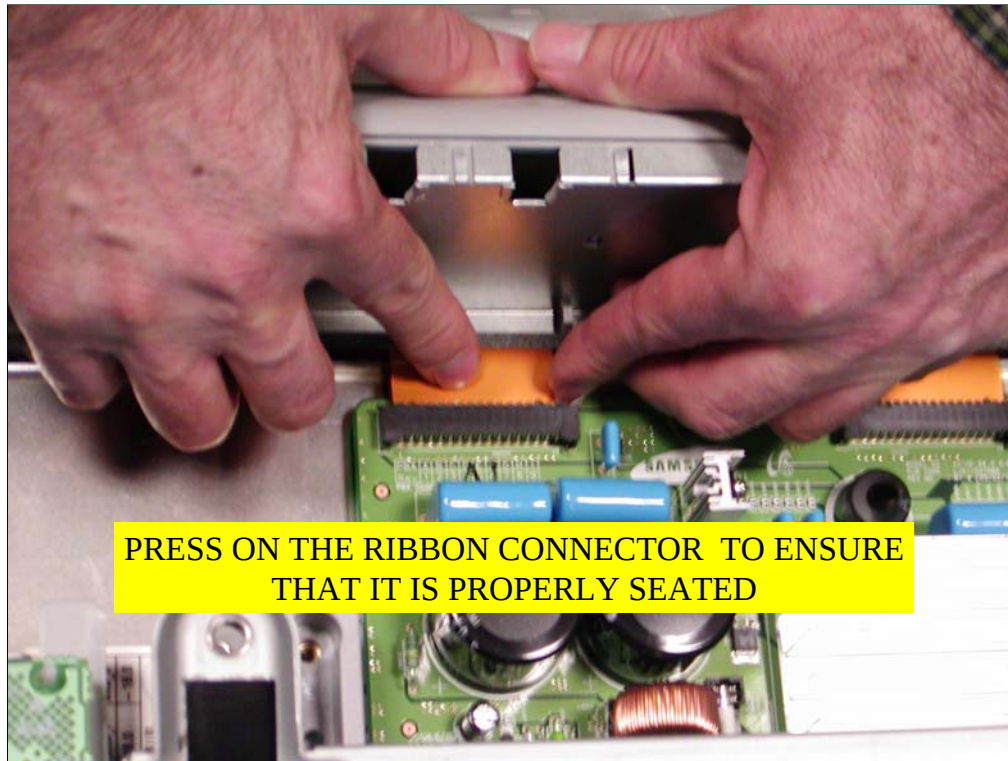
Put the Flat cable into the connector

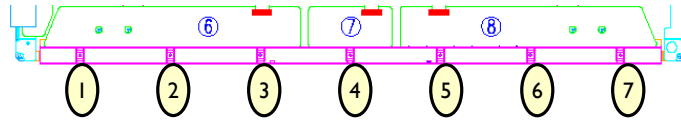


press down lightly until locking click

X BOARD CONNECTION



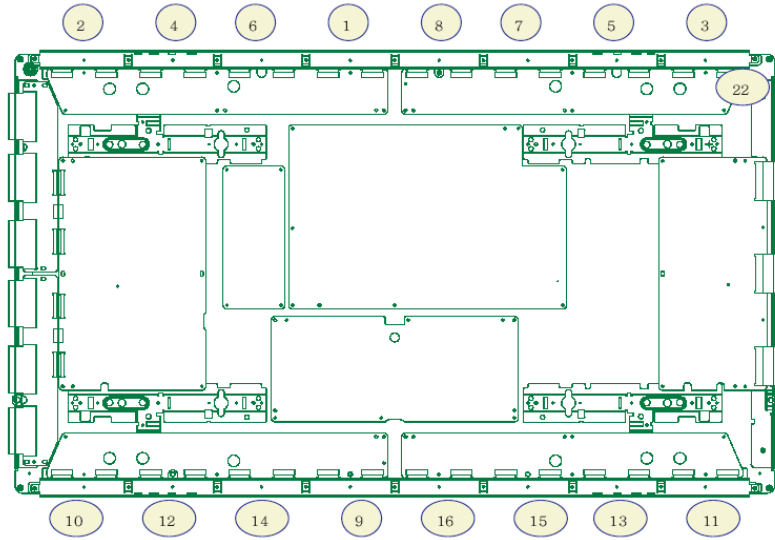




- 1) Remove the screws in order of 2-3-5-6-7-1-4 from heat sink and then get rid of heat sink.
 - 2) Remove the TPC, FFC and power cable from the connectors.
 - 3) Remove all of the screws from defected board.
 - 4) Remove the defected board.
 - 5) Replace the new board and then screw tightly.
 - 6) Get rid of the foreign material from the connector.
 - 7) Connect the TCP, FFC and power cable to the connector.
 - 8) Reassemble the TCP heat sink.
 - 9) Screw in order of 4-1-7-6-5-3-2.
- If you screw too tightly, it is possible to get damage on the Driver IC of TCP.

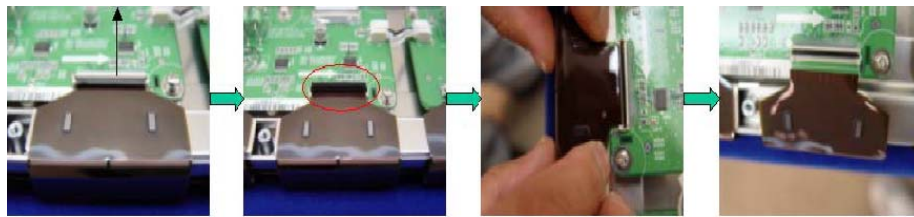


Be care when using electric Screwdriver!



42HDV3 SCREW REMOVAL AND REPLACEMENT

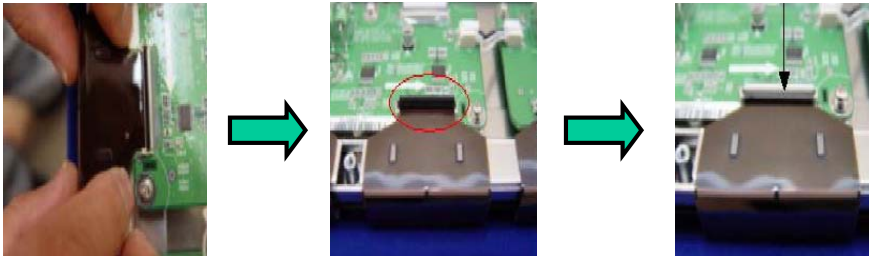
Disassembling of TCP



Open the clamp carefully

Lift the TCP out from connector

Assembling of TCP



Put the TCP into the connector carefully and check alignment

Close the clamp completely, until locking click

TCP DRIVER



TROUBLESHOOTING

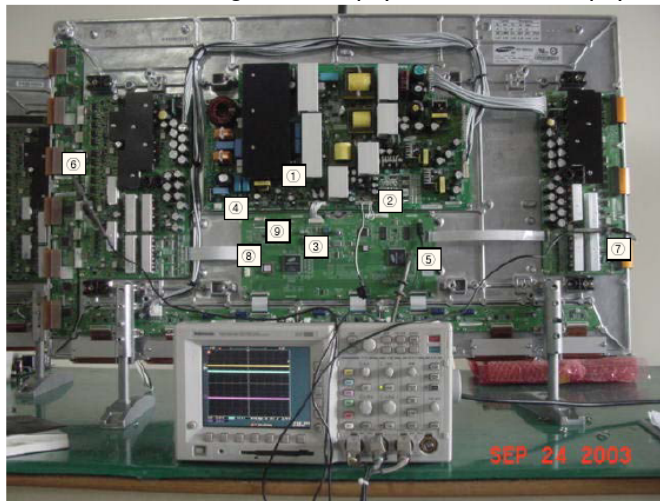
- FIRST DETERMINE IF THE PROBLEM IS THE THE SMALL SIGNAL BOARD OR THE PDP

PANEL PROBLEM

- OPERATE PANEL IN INTERNAL (STAND ALONE)
- CHECK POWER SUPPLY VOLTAGES
- CHECK Y-BUFFER AND X-BOARD OUTPUTS

Trouble Shooting on No Display and Abnormal Display

42"SDV2



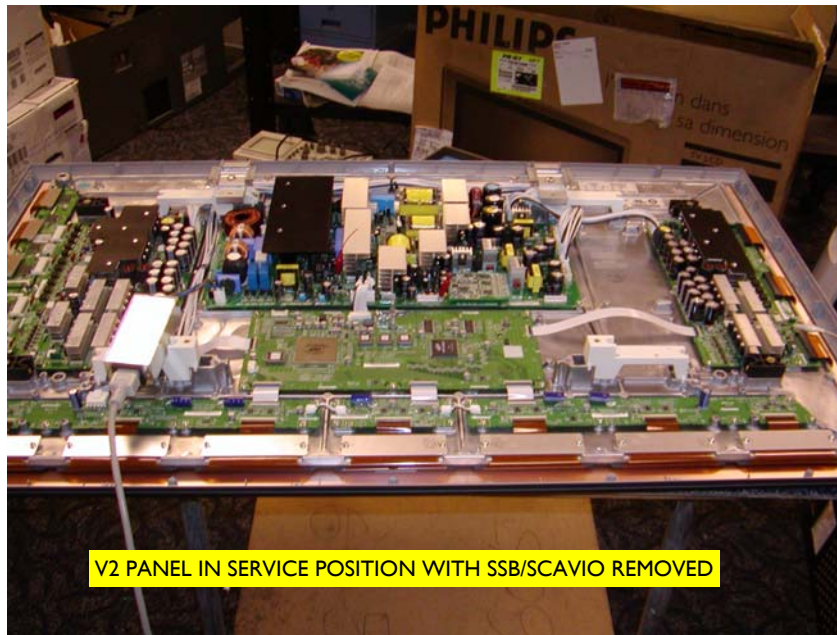
- 1) Preparation
 - ①. Insert Short Bar(J8002) in SMPS
 - ②. Connect Relay Jig S/W JIG
 - ③. Change Logic B'd S/W into internal mode
- external Mode

Internal Mode
- 1 2 3 4

➡

1 2 3 4
- ④. Insert JIG AC socket
 - #Oscilloscope
 - ⑤. CH1 : V-SYNC (CN201)
 - ⑥. CH2 : Y-output (OUT4)
 - ⑦. CH3 : X-output (TP OUT)
 - ⑧. Connect Key-scan B'd
- 2) Turn-On.
 - . Turn on Power S/W
 - . Check LED in Logic B'd(⑧)
 - . Check waveform of X-B'd and Y-B'd [Refer to Picture 1]

SCOPE WITH DUAL TIME BASE DELAYED SWEEP REQUIRED
HIGH FREQUENCY REJECTION SWITCH MAY BE NEEDED TO
TRIGGER ON THE V-SYNC



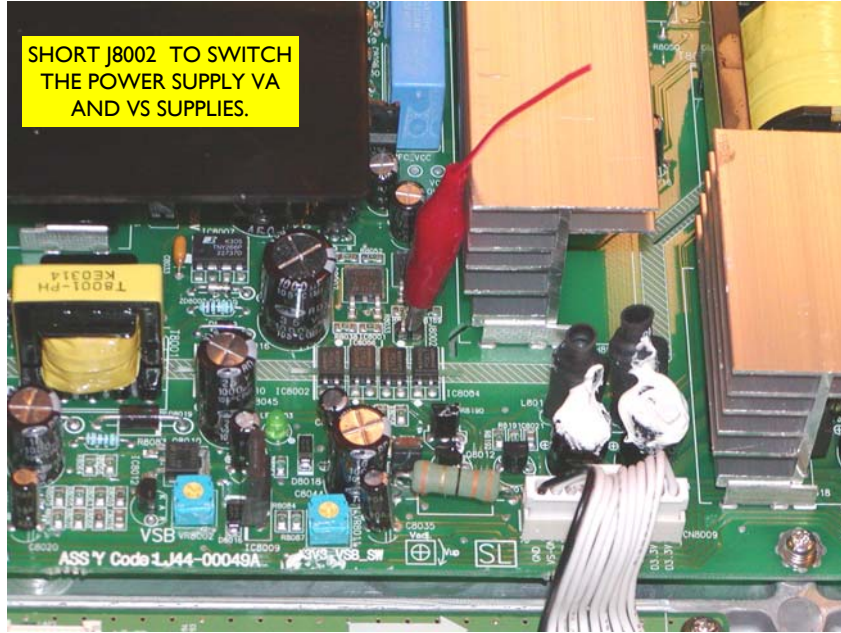
V2

SHORT PINS 1 AND 2 OF CN8002
SHORT PIN 11(STANDBY) TO
GROUND TO SWITCH THE SET ON
OR
USE TEST JIG 3122 785 90760

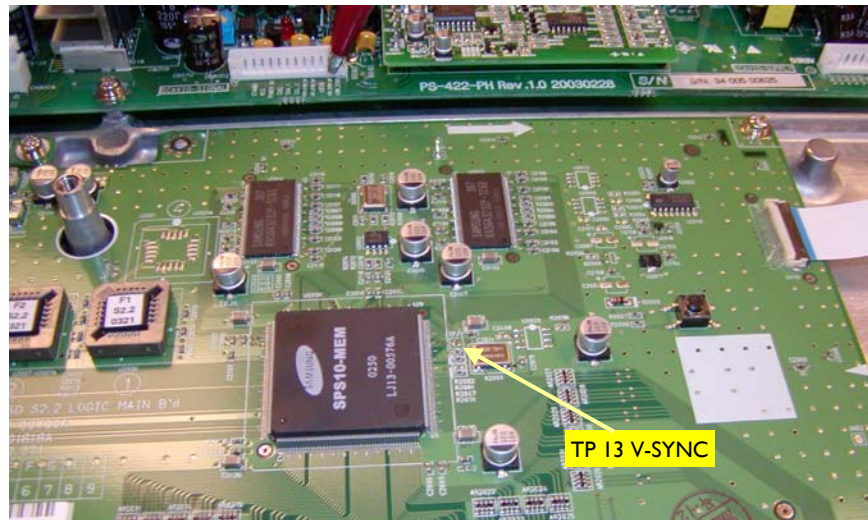


V2

SHORT J8002 TO SWITCH
THE POWER SUPPLY VA
AND VS SUPPLIES.



V2

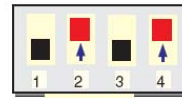
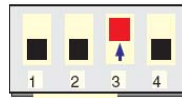
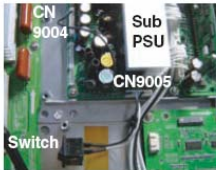


This test point location may change with a different logic board.
V-SYNC IS NECESSARY TO TRIGGER THE SCOPE
THE SCOPE MAY NOT TRIGGER WITHOUT A
HF REJECTION SWITCH

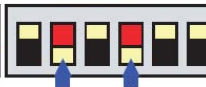
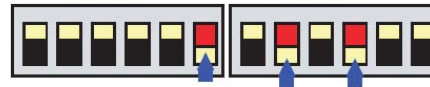
WITHOUT ADAPTER

CONNECT PIN 9 CN9005 TO PIN10 CN9004

CONNECT PIN 4 TO PIN 7 OF CN9005



42-inch



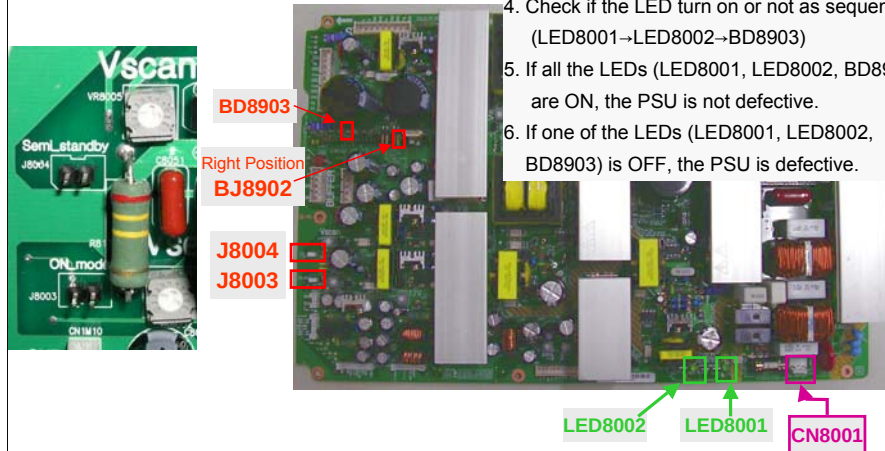
50-inch

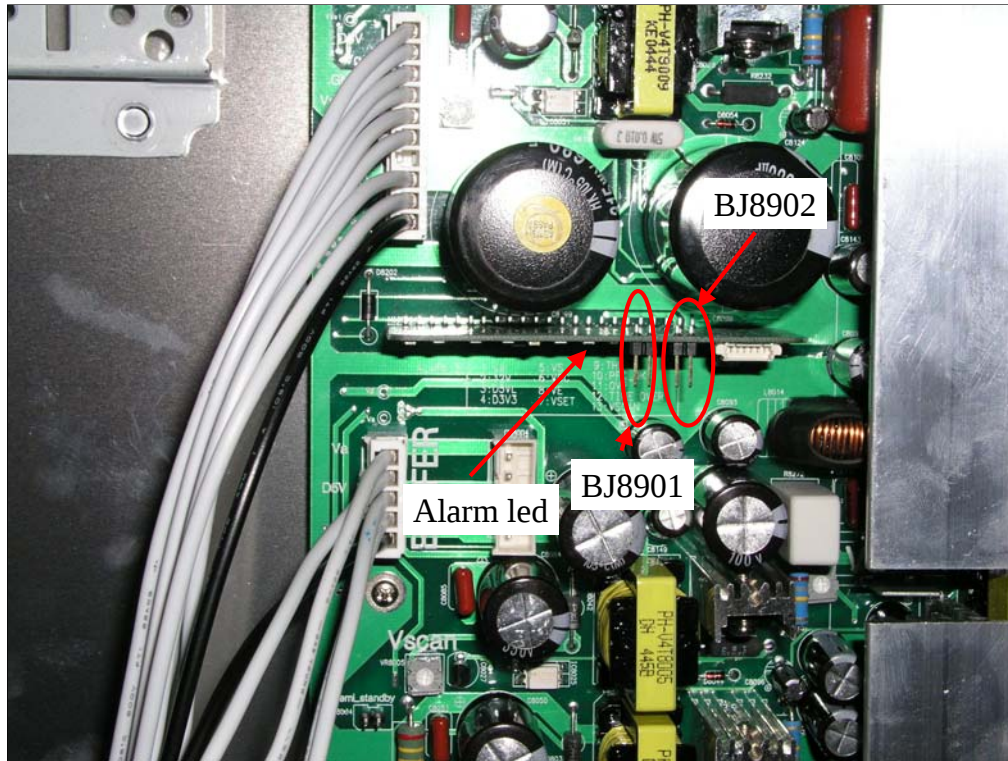
V3

CHECKING THE V4 POWER SUPPLY UNLOADED

Protection & LED indication for Fault Finding

1. Check Input Voltage Range of the defect occurrence area is between 100V AC ~ 240V AC
2. Insert Jumper at J8003, J8004 BJ8902
3. Insert Power (AC) at CN8001
4. Check if the LED turn on or not as sequence. (LED8001→LED8002→BD8903)
5. If all the LEDs (LED8001, LED8002, BD8903) are ON, the PSU is not defective.
6. If one of the LEDs (LED8001, LED8002, BD8903) is OFF, the PSU is defective.





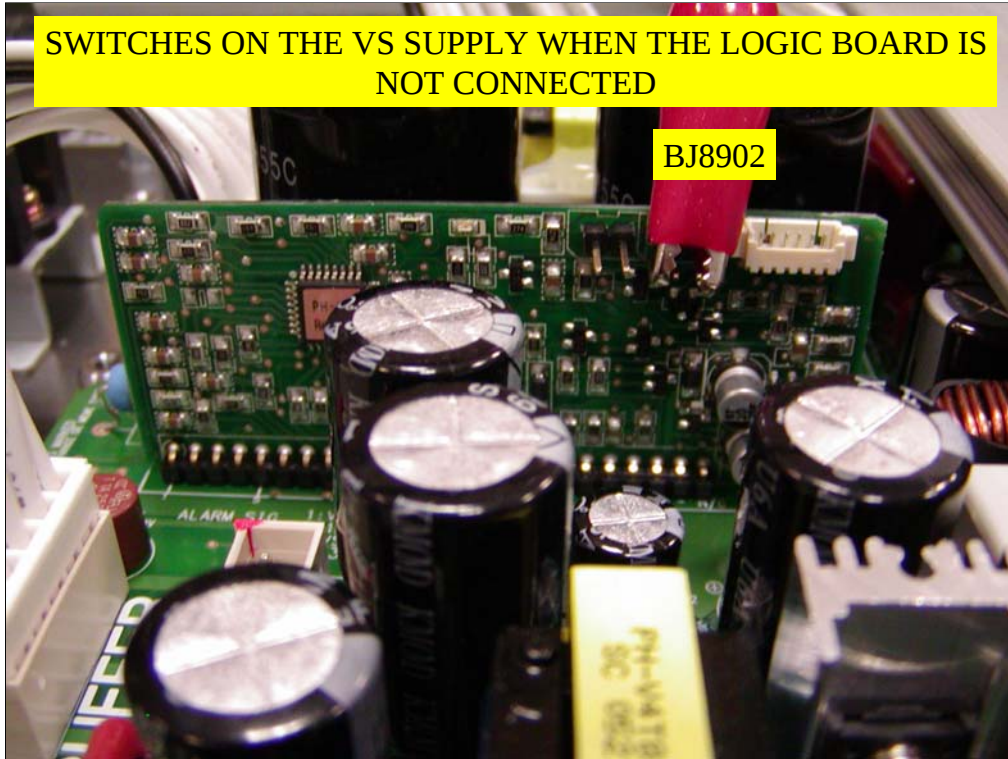
V4

PSU troubleshoot

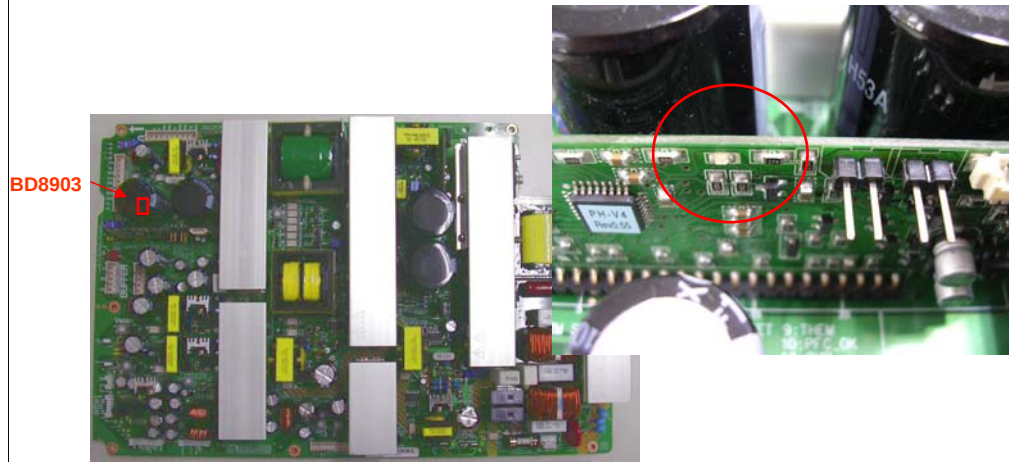
- As verification, this is possible to disable protection: by putting jumper BJ8901 (on alarm board)
 - This disables the protection circuits so that the power supply operation can be checked
- Caution: in this case there is a risk of more damages...

SWITCHES ON THE VS SUPPLY WHEN THE LOGIC BOARD IS
NOT CONNECTED

BJ8902



V4



Error codes can be read by counting the blinking rate of BD8903 LED located on the Alarm board.

V4

Detect Error condition	LED Signature
VA OVP, UVP	1 TIME
12V OVP, UVP	2 TIMES
VSCAN OVP, UVP	3 TIMES
D3V3 OVP, UVP	4 TIMES
VS OVP, UVP	5 TIMES
VG OVP, UVP	6 TIMES
VSET OVP, UVP	7 TIMES
VE OVP, UVP	8 TIMES
Over Temperature (<105℃)	9 TIMES
PFC_OK UVP (>330V)	10 TIMES
5V2 OVP or Active DC_PROT	11 TIMES
D5VL OVP, UVP	13 TIMES

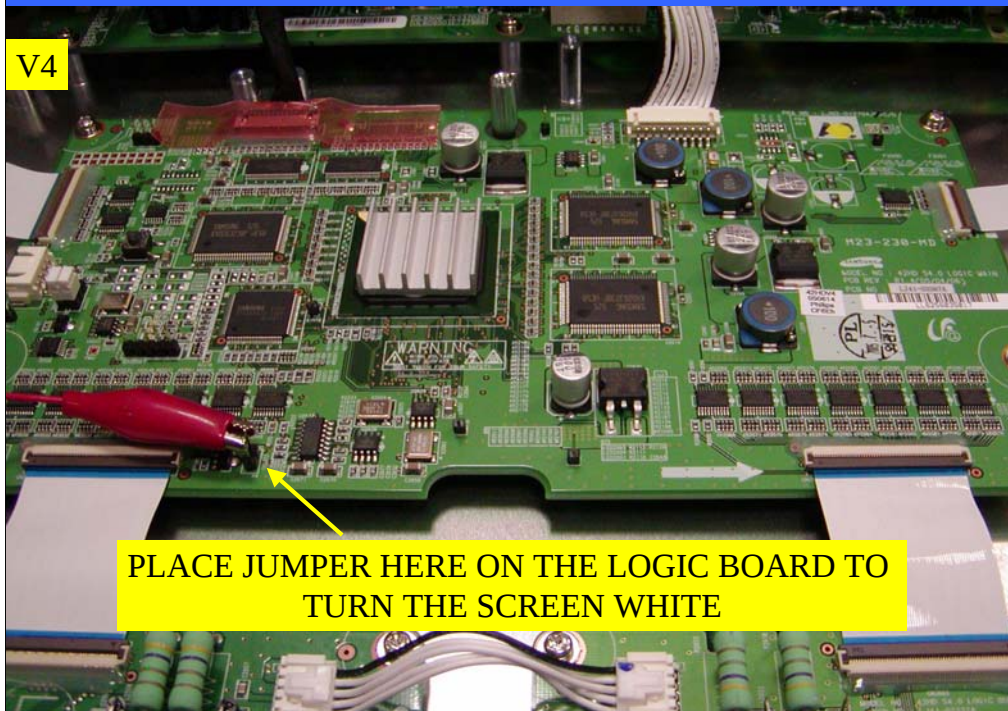
V4

Power Name & Default Voltage		Output Voltage Variable Range	Output Current		
			Min	Max	Peak
Vs	210V	190V~220V	0.1A	1.5A	2.2A
Vscan	-190V	-170V~220V	0.01A	0.03A	0.05A
Ve	90V	80V~115V	0.01A	0.05A	0.07A
Vset	195V	180V~215V	0.01A	0.03A	0.05A
Va	70V	50V~70V	0.1A	1A	2A
Vg	15V	FIX	0.5A	1A	1A
D5V	5.2V	5V~5.5V	0.4A	1A	1.5A
D3V3	3.4V	3.2V~3.5V	0.2A	2A	4A
8V6	8.6V	FIX	0.23A	0.65A	0.65A
VSND_+18V	18V	Sub-Winding	0A	0.3A	2A
VSND_-18V	-18V	Sub-Winding	0A	0.3A	2A
5V_sw	5.2V	FIX	0A	2A	2.8A
12V	12.5V	11.5V~13.5V	0.48A	1A	2.5A
12VL	12.5V	11.5V~13.5V	0A	2.5A	3.5A
*Vtun	33V	Sub-Winding	0A	0.009A	0.012A
5V2	5.2V	FIX	0.04A	0.45A	0.6A

Power Name & Default Voltage		Output Voltage Variable Range	Output Current		
			Min	Max	Peak
Vs	198V	190V~220V	0.1A	2A	2.2A
Vscan	-175V	-170V~-220V	0.01A	0.03A	0.05A
Ve	95V	80V~115V	0.01A	0.05A	0.07A
Vset	195V	180V~215V	0.01A	0.03A	0.05A
Va	70V	50V~70V	0.1A	1A	2A
Vg	15V	FIX	0.5A	1A	1A
D5V	5.5V	5V~5.5V	0.4A	1A	1.5A
D3V3	3.3V	3.2V~3.5V	0.2A	2A	4A
8V6	8.6V	FIX	0.23A	0.65A	0.65A
VSND_+18V	18V	Sub-Winding	0A	0.3A	2A
VSND_-18V	-18V	Sub-Winding	0A	0.3A	2A
5V_sw	5.2V	FIX	0A	2A	2.8A
12V	12.0V	FIX	0.48A	1A	2.5A
12VL	13.5V	11.5V~13.5V	0A	2.5A	3.5A
Vtun	33V	Sub-Winding	0A	0.009A	0.012A
5V2	5.2V	FIX	0.04A	0.45A	0.6A

DC VOLTAGES AND CURRENTS 42SDV4 ONLY

V4

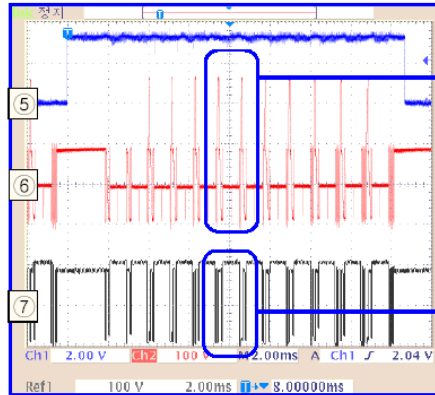


**PLACE JUMPER HERE ON THE LOGIC BOARD TO
TURN THE SCREEN WHITE**

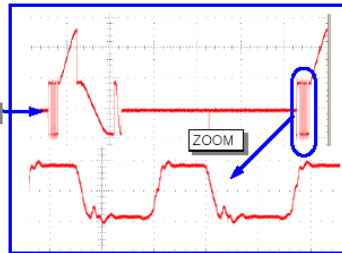
TEST WAVEFORMS

SCOPE SETTINGS 42SDV2

By use of Delayed Time Base

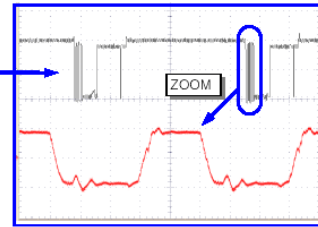


ZOOM



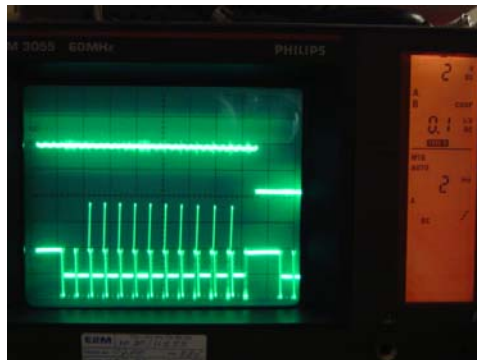
ZOOM

ZOOM



ZOOM

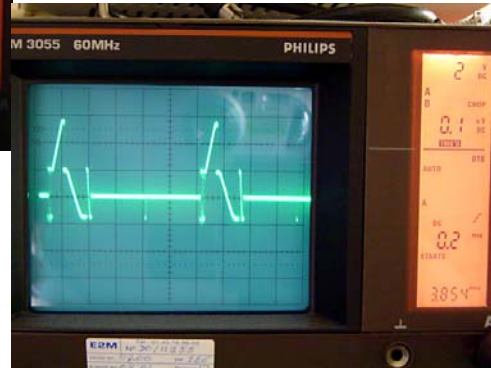
- 5 V Sync on Channel A CN201 2ms/Div/2V
- 6 Y Output on Out 4 100V/Div
- 7 X-Output TP Out

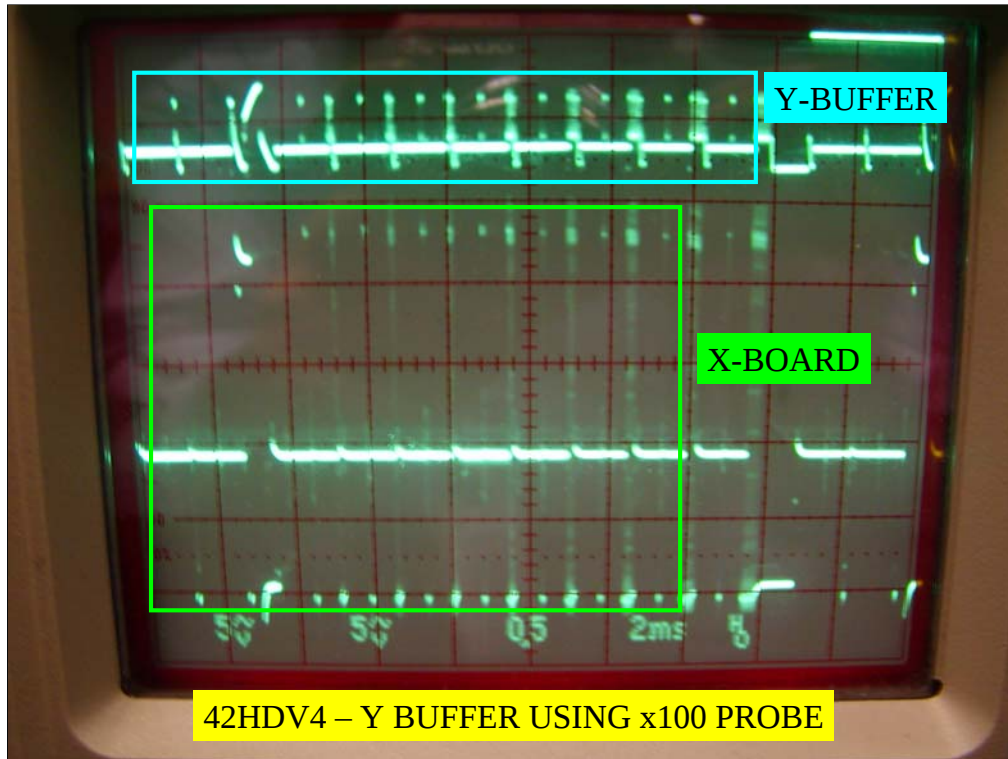


UPPER PULSE IS SYNC

LOWER IS OUTPUT OF Y
BUFFER

42SDV2





ALIGNMENTS

NO ALIGNMENTS ARE NECESSARY WHEN REPLACING
THE FOLLOWING PANELS

X-BOARD

Y-BUFFER BOARDS

LOGIC BOARD

LOGIC DRIVER BOARDS (E)

POWER SUPPLY

THE POWER SUPPLY SHOULD BE CHECKED AND
ADJUSTED IF NECESSARY ACCORDING TO THE CHART
LOCATED ON THE PLASMA PANEL

EACH POWER SUPPLY IS SET TO OPTIMIZE EACH PANEL

VOLTAGE CHART
LOCATED IN THE UPPER RIGHT HAND CORNER
VIEW FROM THE BACK OF THE SET
SOME PANELS HAVE A DIFFERENT LOCATION

☐ NTSC			☒ NTSC/PAL		
Va	Vsc	Vs	Ve	Vset	
70	-70	175	165	173	
VSB	D3V3	D6V	Vamp	Vtun	
5.0	3.3	6.0	12.0	33.0	

POWER BOARD ALIGNMENTS 42SDV4

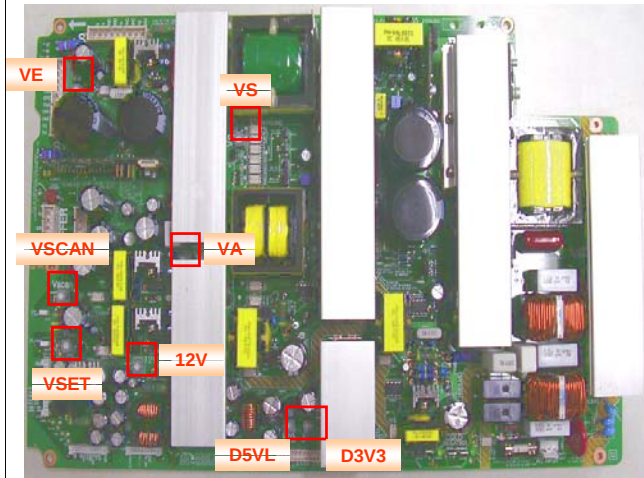
SUB POWER BOARD

D3V3	VR9005	CHECK CHART
D6V	VR9004	CHECK CHART

MAIN POWER BOARD

VSCAN	VR8005	CHECK CHART
VSET	VR8003	CHECK CHART
D3V3	VR8006	CHECK CHART
VSB	VR8002	CHECK CHART
VE	VR8008	CHECK CHART
VS	VR8004	CHECK CHART
PFC	VR8001	DO NOT ADJUST
VA	VR8007	CHECK CHART

V4



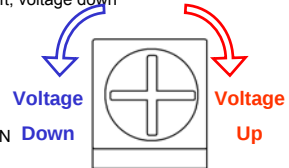
After changing PSU, Check and Adjust the

voltage of 8 points.

If turn right, voltage up

If turn left, voltage down

- 1.VS
- 2.VA
- 3.VSET
- 4.VSCAN
- 5.VE
- 6.D3V3
- 7.D5V
- 8.12VL





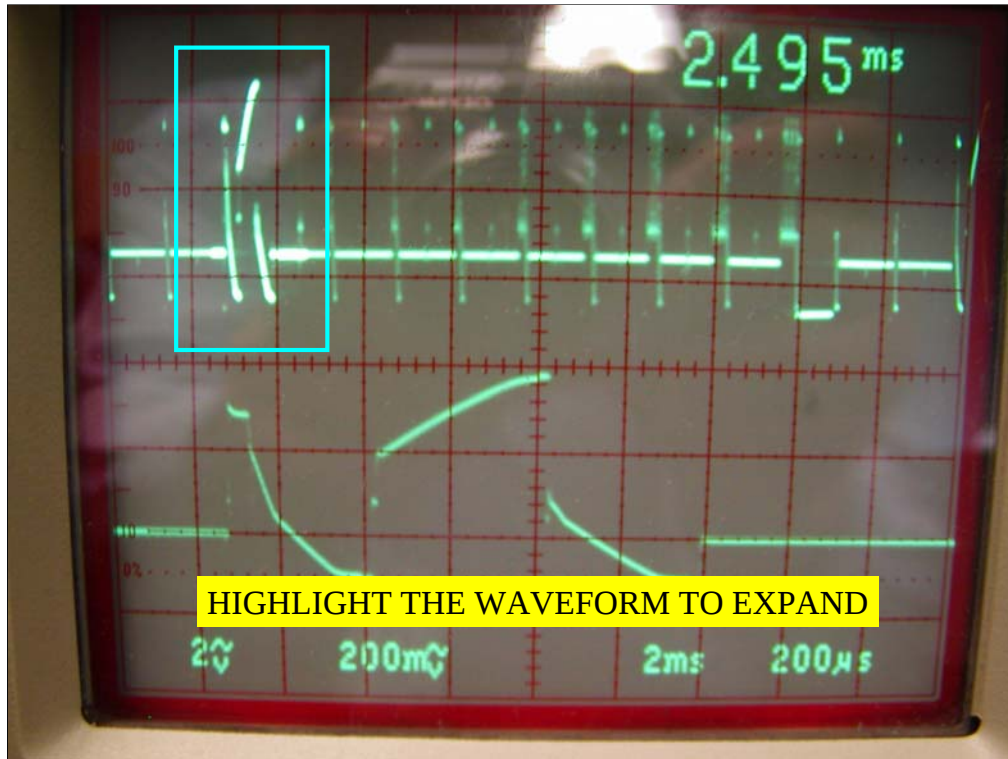
Y-DRIVER BOARD

THE Y-DRIVER ADJUSTMENTS SHOULD BE CHECKED AND ADJUSTED IF NECESSARY TO OPTIMIZE PICTURE PERFORMANCE

A DUAL TIME BASE OSCILLOSCOPE IS REQUIRED TO MAKE ACCURATE ADJUSTMENTS

TO OBTAIN A STABLE WAVEFORM, SYNC THE SCOPE TO THE V-SYNC ON THE LOGIC PANEL

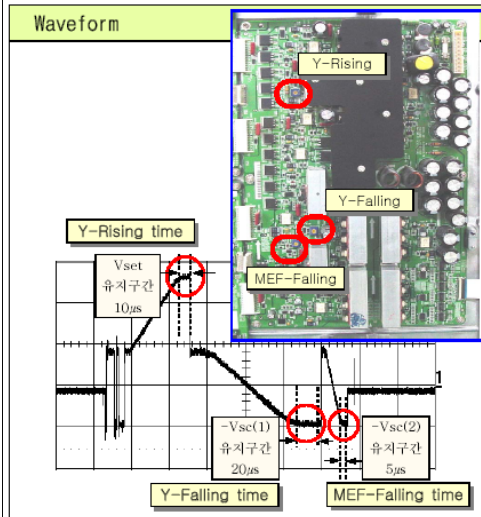
THE Y-DRIVER MAY HAVE CHANGED IN PRODUCTION MATCH THE PICTURE OF YOURS WITH THE ONE IN THE SERVICE MANUAL TO VERIFY THAT THE CORRECT ADJUSTMENTS ARE BEING PERFORMED



THE PREVIOUS EXAMPLE IS A WAVEFORM VIEWED
WITH A TEKTRONIX
OSCILLOSCOPE

EACH OSCILLOSCOPE WORKS A LITTLE
DIFFERENT

42SDV2



1) Make Full White on Screen.

2) Observe waveform using Oscilloscope.

① check OUT4 TP in Y-buffer(upper).

Observe the waveform of the third waveform of 1TV-Field.

② Adjust the division of oscilloscope like the left picture

③ Adjust the period of Vset as $10\mu\text{S}$,

that of -Vsc(1) as $20\mu\text{s}$,

that of -Vsc(2) as $5\mu\text{s}$,

turning VR (Variable Resistor)

(only,when you adjust each period of -Vsc(1) & -Vsc(2)

adjust Vertical Division of oscilloscope as '2V or 5V')

④ VR for Vset : VR5003 (Y_main)

VR for -Vsc(1) : VR5001 (Y_main)

VR for -Vsc(2) : VR5002 (Y_main)

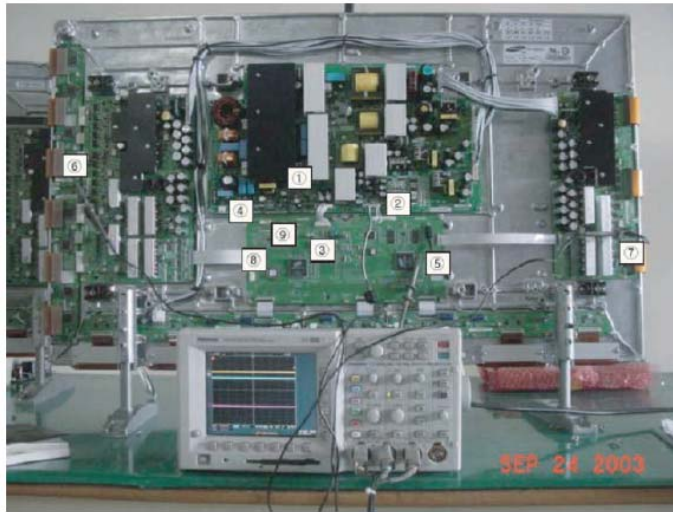
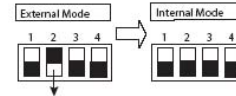


Figure 8-10 Adjusting procedure (42" SD v2)

1) Preparation

- 1 Insert jumper J8002 on PSU board
- 2 Connect the Jig connector switch
- 3 Put the Logic board dipswitches into internal mode, to generate a Full White screen



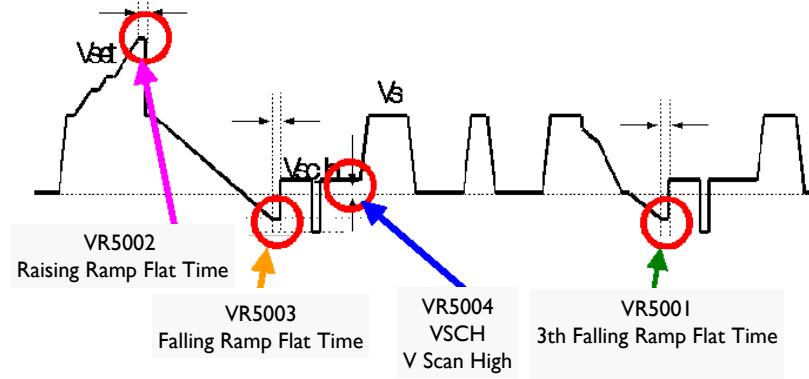
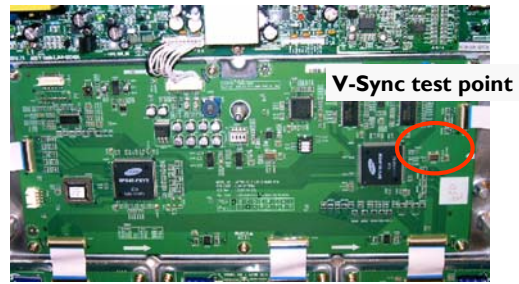
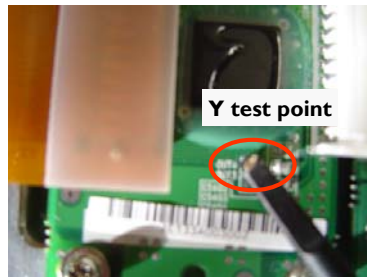
- 4 Connect the AC power jig

Connect the Oscilloscope:

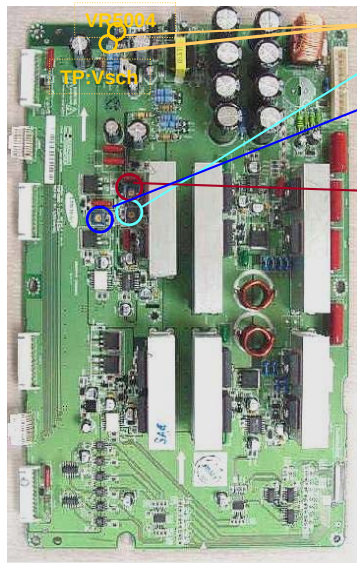
- 5 CH1: V-SYNC (CN201)
- 6 CH2: Y-output (OUT4)
- 7 CH3: X-output (TP OUT)
- 8 Connect the Key-scan Board

2) Turn-On.

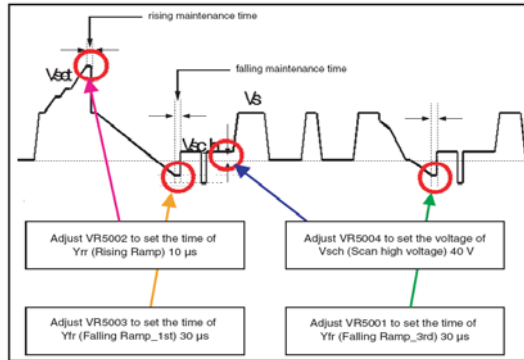
- Turn on the Power switch
- Check the LED on the Logic Board
- Check waveform of X- and Y-board (Refer to Picture below)



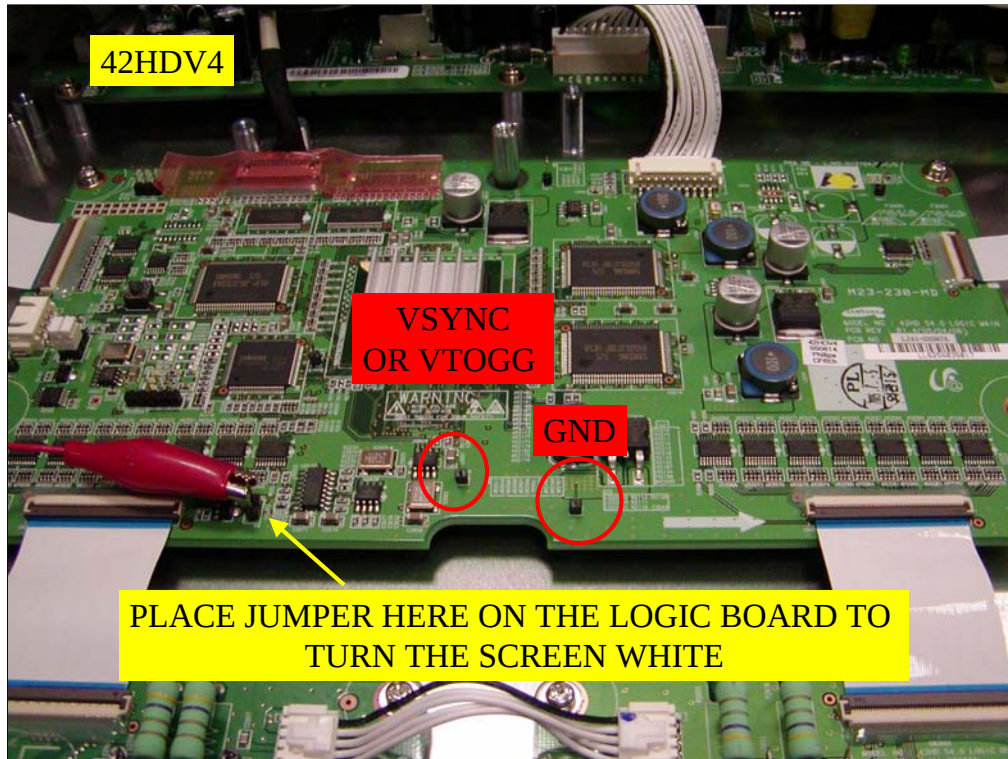
42SDV3

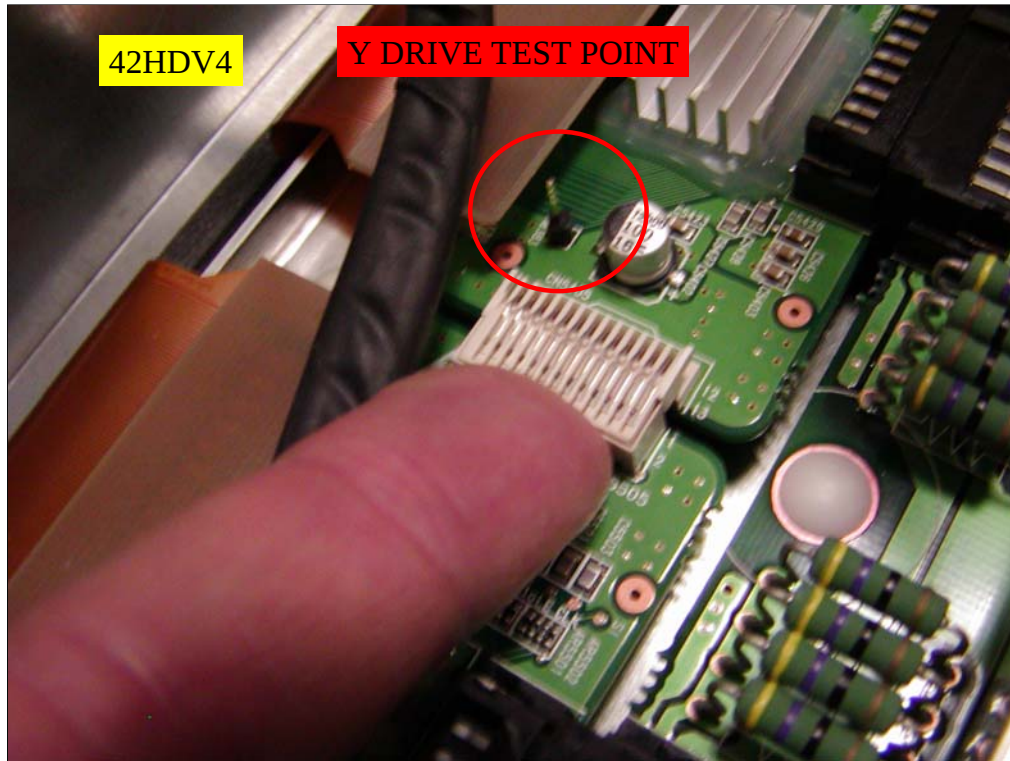


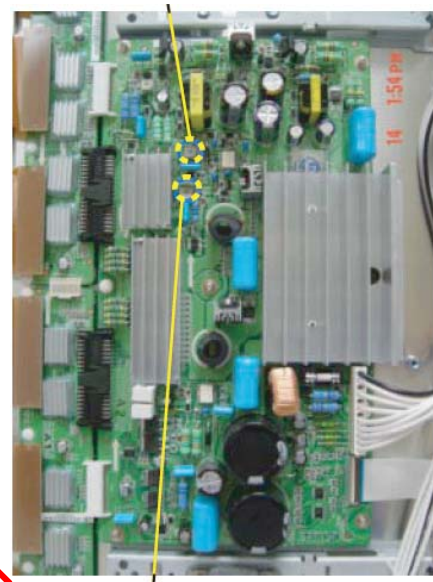
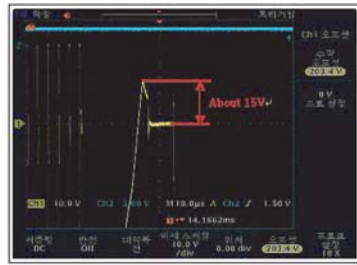
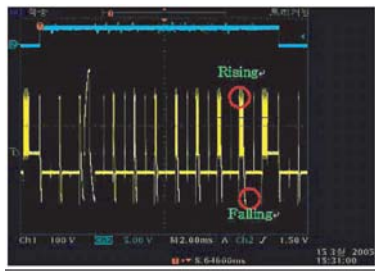
1. VR5004 Adjustment : Vsch TP => 40volt
2. VR5002 Adjustment : Rising Ramp flat time: Typ. 10usec
3. VR5003 Adjustment : Falling Ramp flat time => Typ. 30usec
4. VR5001 Adjustment : 3th SF Falling Ramp flat time => Typ. 30usec



	Wave Form	Adjusting Location No	Default
37SDV4	Rising_Ramp		30 μ S (30 ~ 40)
	Falling_Ramp_1st		10 μ S (10 ~ 15)
	Falling_Ramp_3rd		10 μ S (10 ~ 15)
42SDV3	Rising_Ramp	VR5002	10 μ S
	Falling_Ramp_1st	VR5003	30 μ S
	Falling_Ramp_3rd	VR5001	30 μ S
42HDV3	Rising_Ramp	VR5002	10 μ S
	Falling_Ramp_1st	VR5003	20 μ S
	Falling_Ramp_3rd	VR5001	10 μ S
50HDV3	Rising_Ramp		50 μ S
	Falling_Ramp_1st		35 μ S
	Falling_Ramp_3rd		20 μ S

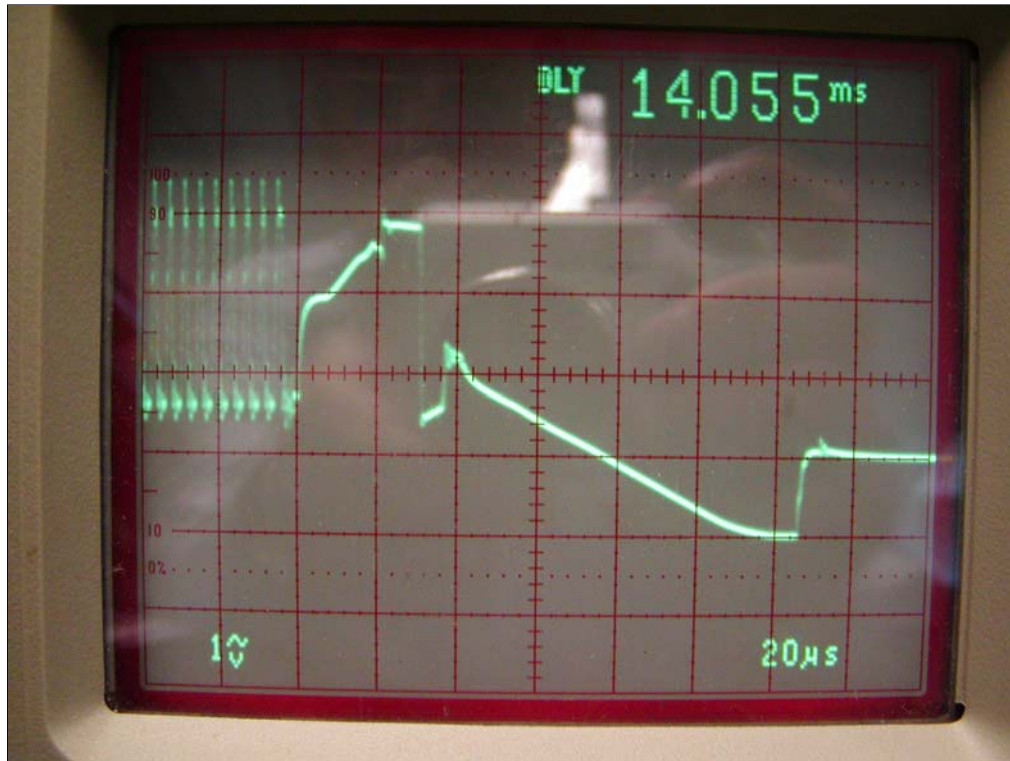


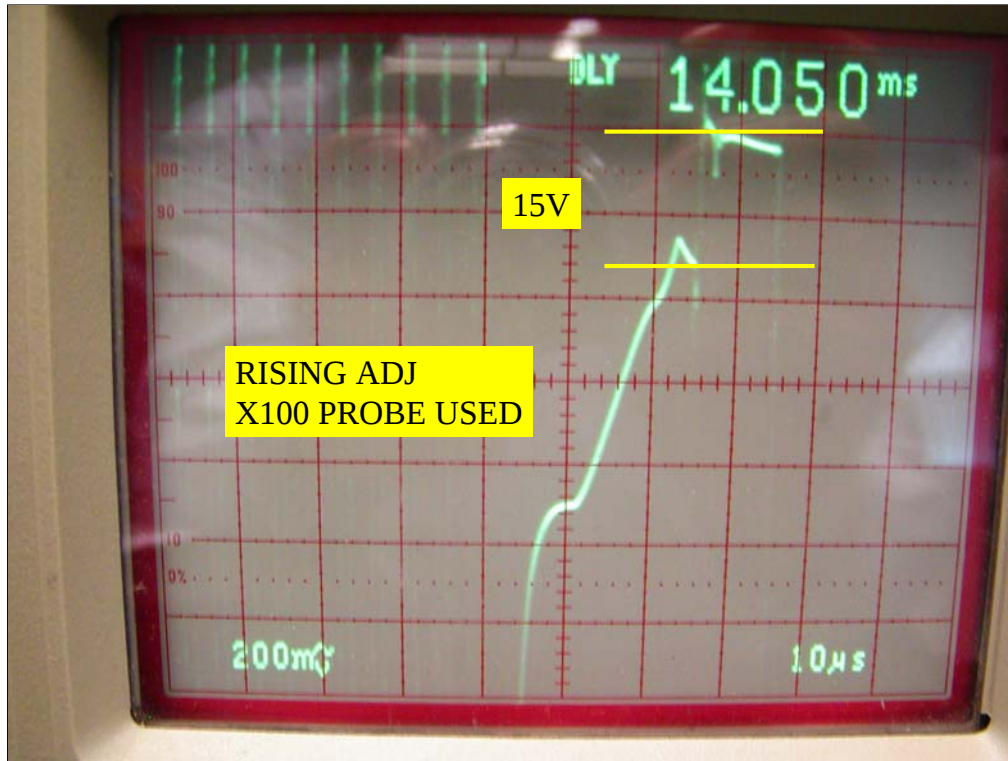


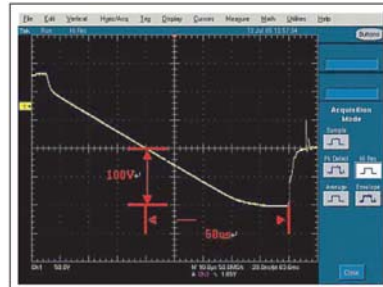
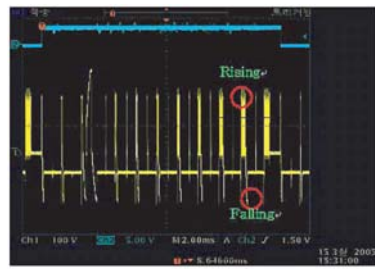


VR5001 Adjustment : Rising ramp(Yrr)

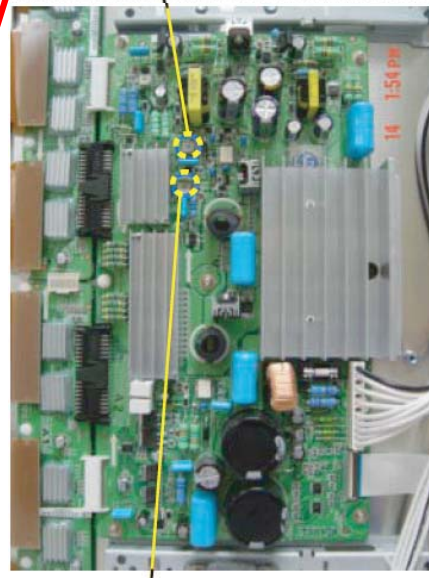
42HDV4

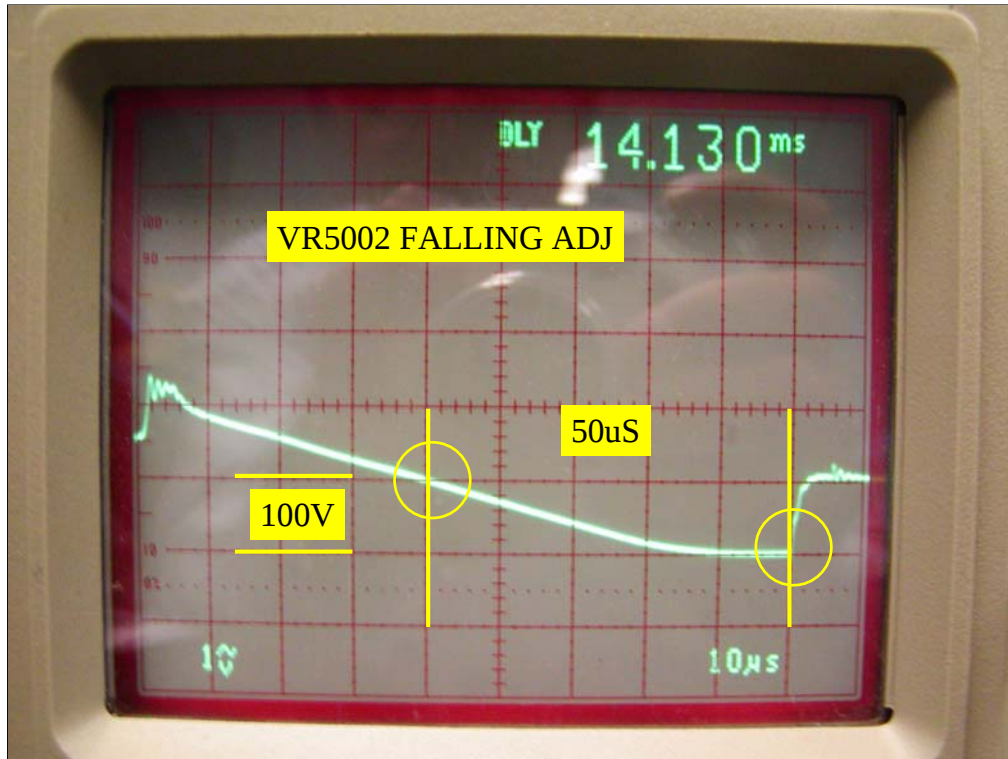






VR5002 Adjustment : Falling ramp(Yfr)





Colour Television

Module

Service
Service
Service

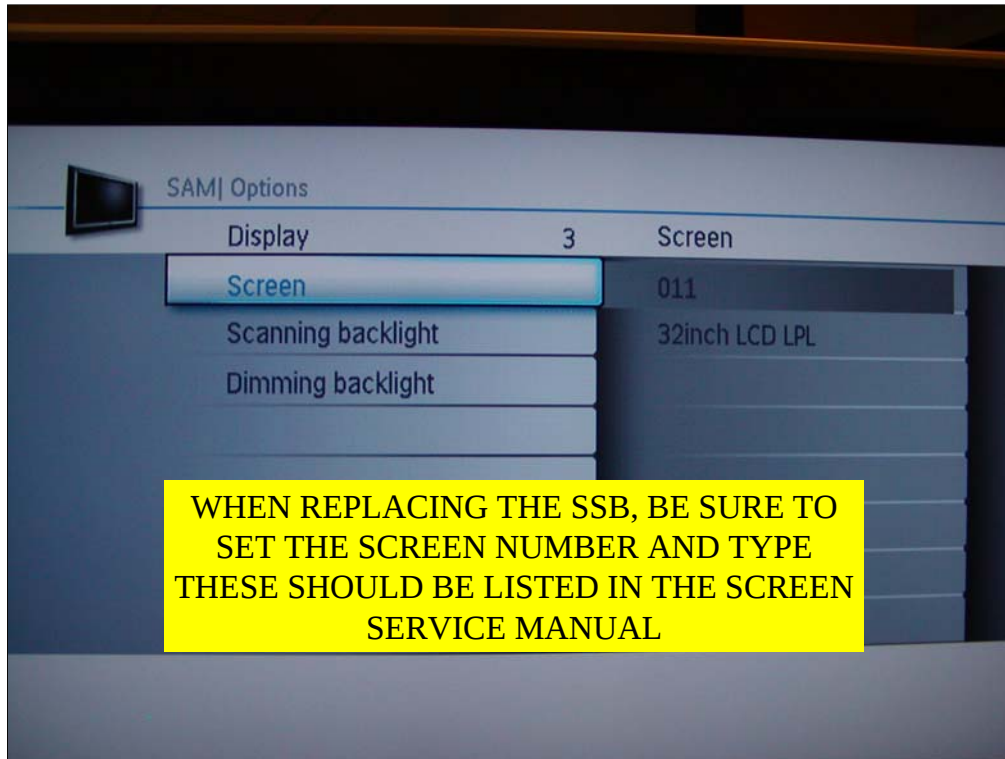
SDI PDP Repair Manual

S37SD-YD02 (37-inch SD v4)
S42SD-YD05, YD06, YD07 (42-inch SD v2, v3, v4)
S42AX-XD02, YD01 (42-inch HD v3, v4)
S50HW-XD03, XD04 (50-inch HD v3, v4)

Service Manual

Contents	Page
1. Technical Specifications, Connections, and Chassis Overview	2
2. Safety Instructions, Warnings, and Notes	15
3. Directions For Use	16
4. Mechanical Instructions	49

REFER TO THE PDP REPAIR MANUAL FOR ALL ADJUSTMENTS



SCREEN DIVERSITY

WHEN CHANGING THE SSB, IT IS IMPORTANT TO PROGRAM THE SCREEN DIVERSITY CODE AS SHOWN ON THE OPTION CODE LABEL.

IF THE WRONG CODE HAS BEEN ENTERED CAUSING THE SCREEN TO BE BLANK, THE DIVERSITY CODE CAN BE RESET BY ENTERING 0 6 2 5 9 8 MENU FOLLOWED BY THE CORRECT CODE.

OPTION CODE

00016 00007 00033

14979 01035 00000

04768 00000



SCREEN DIVERSITY: 011

